THE OBSTETRIC GAZETTE.

Vol. VIII. — JULY, 1885. — No. 7.

Original Articles.

INTRA-UTERINE FIBRO-MUCOUS TUMOR.

Read before the Cincinnati Obstetrical Society, April 9th, 1885, by JULIA W. CARPENTER, M.D., Cincinnati, O.

Mrs. X., aged 41, married eighteen years, is the mother of three children, the youngest eight years of age. Between the second and third child, she had two miscarriages two years apart; one at two months, the other at four and at a half months. She had always been strong and well and a good walker, and was of English parentage.

She came for advice November 5, 1884, on account of a hemorrhage of the form of menorrhagia, the period being both profuse and prolonged. This had existed for nearly three years, and had increased steadily in quantity and length of time until for the last six months there was an interval of only three days.

The first thing she every noticed was one day three years ago a very slight discharge of water. After that the hemorrhage occurred. At no time in her life, before or since the trouble began, has there been any leucorrhœa, dysmenorrhœa or constipation.

She had always been a martyr to headaches, but since the hemorrhages they have been less severe. There was no pain at any time during the menorrhagia, but a "peculiar drawing sensation" in the pelvis and extending down to the knees. There was often a "creeping sensation about the waist, and a peculiar faint feeling at the pit of the stomach," which came at intervals from first to last, sometimes several times a day. At these times it always occurred to her that she must be afflicted with tape worm; at other times she thought it might be a tumor or cancer. Numbness of the feet and limbs was frequent, and during the last year and a half swelling of the feet was troublesome every day. The last six months, digestion was impaired, a little "filling up." She had always been a great walker, but it now gave her a pain in the lower and back part of the head. She had steadily grown thinner, and her complexion had become so changed and sallow that her friends suggested cancer to her.

An examination revealed the following condition: Cervix and os in a normal state. The body uniformly enlarged and extending to the umbilicus like a six months' gestation. There was no fluctuation; the abdominal walls were somewhat thick.

As it was near the time for the hemorrhage to recur, I decided to see first what effect ergot would have upon it, and prescribed Squbbs' fluid extract, half teaspoonful four times a day. This delayed the flow a few days and also diminished it somewhat in quantity. On the twelfth day after beginning the ergot I was summoned to the house with the statement that something was protruding. I found the cervix dilating and a red fleshy mass was being expelled and already extended outside the vulva. The cervix was dilated enough to pass the finger through without danger of injury to the part being expelled. A hard nodular mass was felt, attached on the right side, beginning at the internal os. The finger passed over this hard body to the left and then upward between it and the soft part that was being extruded.

The part that extended beyond the vulva, I wrapped in a piece of linen covered with carbolized vaseline, and directed rest in bed and the ergot continued.

The following morning much more was expelled and as it was beginning to slough at the end, I put on a ligature just outside the vulva and cut off a piece weighing nearly four ounces. This had about the consistence of liver and could be sliced with a sharp knife.

By the next day still more was extruded and outside the os it was so softened that it severed itself during an examination. These two masses with some pieces passed during the day weighed altogether nearly eight ounces.

The soft part of the tumor now remaining extended about an inch outside the os, and as far as the finger could reach between the fibrous mass and the uterine wall on the left this soft portion could be traced upward. The cervix had dilated more and the fibrous portion could be more easily investigated.

It had a broad base and was attached on the right side from the internal os to the fundus which was still nearly at the umbilicus.

The ergot was continued and the day following the cervix was entirely obliterated, the dilatation of the os was about two inches and the hard mass was bulging slightly from it. To bimanual examination the large rotund body of the uterus was harder, but there was also a perceptible, though slight decrease in its size since the night before. This was evidently due to a continuous discharge of a yellowish, slimy material, with pieces of glistening white fibrous tissue and red shreds and pieces.

I had expected to use surgical means for the removal of the tumor, as soon as things came to a stand still, that is when there was no further dilatation of os and extrusion of the tumor. But with the continuous discharge of debris, it seemed to me that by keeping up a persistent contraction of the uterine fibers, by the steady use of ergot, there was a possibility that the entire mass might be disintegrated and discharged. Owing to the large attachment of the tumor this method of removal was preferable if other evils could be guarded against.

To secure absolute cleanliness and prevent the absorption of septic material, I, myself gave vaginal injections of hot carbolized water, three times a day for five days, twice a day for ten days and then once a day until the discharge had ceased.

In giving these injections slight pressure was made against the vulva in a way to prevent the too speedy outflow of all the water. The object of this was to keep the vagina somewhat distended with the water to insure the cervix being entirely surrounded and bathed in it.

The ergot was continued and the patient carefully watched in every particular, especially the pulse and temperature, to catch the least intimation that this course was not a wise one.

The discharge of debris continued, some pieces of white fibrous tissue being an inch and a half long, half an inch wide and one eighth inch thick. Bi-manual examination each day showed a steady decrease in the size of the round uterine body.

The temperature a number of times fell below normal, but with a little stimulant or omission of one or two doses of ergot, it was soon normal again.

The greatest dilatation of the os lasted about two days, when the cervix began slowly to reform. The discharge was very abundant for two weeks, then it gradually lessened in quantity, and at the end of four weeks from the first it ceased entirely.

As the uterus was not yet normal in size, the ergot was continued in diminished doses three weeks longer, with the effect of steady decrease in volume.

During that time, with ergot, she had one normal menstruation. Three periods have passed since then, and without ergot or any other medication whatever, two were five days in length, and one seven. The quantity was normal. Her time before the hemorrhage was eight days. The sound passes now one half inch beyond the normal length.

Her color began to improve as soon as a part of the tumor was removed. The numbness and swelling of the feet also ceased.—

The ergot was taken altogether for two months and ten days, in varying doses, from two to four times a day. To prevent any disturbance of the stomach the ergot was given some days entirely by enema, and other days every alternate dose in that way. There was at no time the least nausea or disturbance of the stomach. Whenever the ergot gave any severe pain the dose was lessened, as the work seemed to be accomplished without painful contractions.

From the tenth day the patient began to sit up during short periods, and was soon allowed to be up in her room for most of the day.

As to this special form of tumor not much is said by the various authorities. Thomas speaks of degenerative changes sometimes taking place in a true fibroid. Goodell (Lessons in Gynecology, 1880, page 284) says:

"In certain rare cases uterine tumors, primarily fibroid, will take on a cystic transformation." But Emmet (Principles and Practice of Gynecology, 1880, pp. 282–3) refers to two cases "where an apparent mucous growth merged gradually into the dense tissue of a true fibrous tumor," and also, "but there can be no doubt of the fact that this soft tissue was continuous with and sprang from the fibrous tissue." "These cases seem, in the absence of other light, to indicate that this fibrous tissue sometimes undergoes structural changes, depending upon position and surrounding circumstances."

Billroth (General Surgical Pathology and Therapeutics, 1879, page 620) says. "Fibromata are capable of some anatomical metamorphoses. *Partial mucous softening*, great serous infiltration, calcification, and even true ossification are not very rare."

Society Reports.

TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF CINCINNATI.

Stated Meeting, May 14, 1885.

The Vice-President, Dr. G. S. Mitchell, in the Chair.

Rupture of the Uterus.

Dr. E. W. Mitchell contributed the following on the above subject:

The following case which it was my fortune to see is chosen as a text for some remarks upon the causation and treatment of rupture of the uterus.

Mrs. B., colored, aged 34 years, the mother of seven children, four of whom are living, the eldest seventeen years of age. Her last three children, by a second husband, died just before, or soon after birth. No specific history on either side could be elicited. Her former labors have been tedious and one instrumental. Her general health has been fair.

She was taken in labor (eighth confinement) at full term on the morning of Sunday, December 23d. A physician of reputation and large experience was called, who, after remaining a short time, told the husband that his services would not be needed for some time and left with instructions that he should be called when the pains became severe. When again sent for he could not be found, and it seems that another physician was not called until Monday afternoon. The physician then called gives me the following history: At the time he entered the room the patient was having very severe pains. Soon after his entrance, in the agony of excessive pain, she threw herself upon her hands and knees, straining severely at the same time. She had no pains afterward, although the cessation of pain may have been due to the effect of chloro-

form which he at once proceeded to administer. Upon examination he found an arm protruding; failing in his efforts to turn, he called in another physician. Both made unsuccessful efforts to turn the fetus. One of them finally succeeded in introducing the hand into the uterine cavity far enough to discover a rent in the anterior wall.

The nature of the case was then explained to the family and the proposition to operate made. Permission was refused by the husband. The physicians declined further responsibility in the case and left, after giving her morphine to be taken to relieve her suffering. If this history be correct it is altogether likely the rupture occurred at the time of the severe pain witnessed by the doctor.

On Tuesday morning I was called upon by the husband who stated that his wife had been in labor since Sunday and that the physicians who had been in attendance had abandoned the case.

I found the patient greatly exhausted and weak. Pulse 130 and weak. Upon examination the uterine body presented in the median line firmly contracted upon its contents. In the left iliac region was an irregular mass about the size of an orange, which seemed to be immediately beneath the abdominal parietes. The limp right arm of the fetus protruded from the vulva to the elbow. The other hand was in the vagina. Although no satisfactory history of the symptoms could be gotten from the demoralized friends, we concluded from the physical conditions present that we had to deal with a case of rupture of the uterus, and decided to attempt delivery by version. After the administration of a stimulant the patient was anæsthetized by Dr. J. G. Hirons, to whom I am indebted for valuable assistance in the management of the case.

The chloroform was exchanged for ether as soon as anæsthesia was produced.

Without difficulty and without the exercise of force the arms were pushed up into the uterus, a knee grasped and the body extracted. As some resistance was offered to the passage of the head, forceps were applied and extraction easily accomplished. The placenta was immediately removed by the introduction of the hand. Examination discovered a vertical rent in the anterior wall of the uterus, a little to the left of the median line, involving the whole cervix and extending apparently almost to the fundus. The uterus was also torn from its vaginal attachment through the entire anterior semi-circumference. The uterus was washed out with a hot bichloride solution ($\frac{1}{15000}$). It contracted at once firmly. External heat was applied and stimulants given with the hypodermic syringe. The patient did not regain consciousness, and died six hours after delivery. A post mortem examination could not be obtained.

Dr. Duncan, from his experiments upon the power of the uterus to resist forces tending to burst it, concluded that "Nature has provided in

the healthy uterus an apparatus possessed of far greater capabilities in a mechanical point of view than are ever called into exercise * * * never spontaneously ruptured when healthy." (*Researches in Obstetrics*, p. 327). "The progress of modern research tends more and more to the conclusion that the cause which leads to the accident could only have operated because the tissue was in a state predisposed to rupture." (Playfair, text-book, American edition, 1880).

Such is the view expressed by our text-books. Yet it is a view which can scarcely be maintained in the light of the many cases reported in which examination has failed to find any pathological changes. Bandl, for instance, reports thirty-two cases in none of which could pathological changes be discovered.

The inflammatory changes consequent to blows, or contusions, malignant infiltration, the presence of a fibroid, or the cicatrix of a former rupture, or of a previous Cesarean section, or fatty degeration, are all conditions which we readily understand would favor its occurrence and may lead to it even without any abnormal resistance to the passage of the child.

This accident is one of the dangers to be kept in mind and to be guarded against in dealing with all cases in which any of these diseased conditions are known, or suspected to be present.

With our present knowledge of the subject, however, it is more correct to put down disease of the uterine walls as *one* of the causes rather than as *the* predisposing cause; as such it is given by Trask, by Ames and by Lusk. Trask (*American Journal Medical Sciences*, 1848, 1856), in the large uumber of cases he collected, found the presence or absence of disease mentioned in but 49. Of this number 10 are given as "healthy," 14 "thinned," 14 "softened," 1 both thinned and softened, 2 thinned and thickened, 1 thickened, 3 diseased.

In the 100 cases collected by Ames (*American Journal of Obstetrics*, 1881) disease of the uterine tissue is mentioned in 14, softening and thinning in 4, fatty degeneration 4, thin weak walls with a possibility of some degeneration 1, disease of uterine tissue 1, cancer 1, follicular disease of cervix 1, thinning with hydrocephalus 1.

The more frequent occurrence in multiparæ has been explained by the greater liability to uterine disease in women who have borne several children. This is no doubt in part the true explanation.

Lusk says this preponderance is for the most part due to laxity of the round and lateral ligaments of the uterus which offer accordingly but slight resistance to the recession of the ring of Bandl; to the stretched condition of the abdominal parieties which permits obliquities and anteflexion to take place, and the separation of the recti muscles."

All conditions which offer unusual resistance to the passage of the child may lead to rupture, contraction of the pelvis, malposition or malforma-

tion of the fetus, rigidity of the os, tumors, etc. Of those induced by such causes Trask gives 74 cases of contracted pelvis, 16 shoulder presentations, 12 hydrocephalus, 6 rigid os, 6 bands in the vagina, 1 enlarged ovary.

In the 100 cases reported by Ames deformed pelvis occurred in 17 cases, hydrocephalus 6, cross presentations in 6.

In the 32 cases reported by Bandl (*Centralblatt*, 1875, No. 23) there 19 cases of contracted pelvis, 8 shoulder presentation, and 3 cases of hydrocephalus.

In 19 cases reported by Dr. Radford the pelvis was contracted in 11 (*Obstet. Transactions*, vol. iii). Dr. Keith collected 74 cases of hydrocephalus, in 16 of which rupture occurred (Sir J. Y. Simpson, selected obstetric works, p. 385).

Another class of cases are due to external violence or to operative procedures. Jolly has collected 71 cases caused by forceps, 10 by cephalotribe and 30 during other operations. (Rupture uterine pendant le Travail, Paris, 1873, as quoted by Playfair). Cases occurring from this cause are not likely to be reported and hence their true proportion can not be known.

The improper use of ergot is a not very rare cause. "Prof. Bedford has in his museum four wombs ruptured by the improper use of ergot. (Leishman, text-book, p. 418). Meigs reports 3 cases; Ames, 2; J. G. Engleman (*Philadelphia Med. News*, 1884), 2; Jolly found 33 cases of rupture in which ergot had been largely given.

From examination of his own and Trask's statistics Ames gives contraction of the pelvis the first place in the list of causes; placing disease of the uterine tissue second; malformation and malposition of the fetus third.

Bandl was the first to give a satisfactory explanation of the mechanism of rupture (*Weber Ruptur der Gebärmutter, Wein* 1875.)

While the body of the uterus contracting upon its contents in the attempt to expel them becomes thickened, the fibres of the cervix (or "lower segment") become all stretched out and thinned. If now the cervix be from any cause prevented from retracting over the advancing part, while the uterine contractions continue, this thinning and elongation become excessive. The line of demarcation between the body of the uterus and the inferior segment, instead of remaining during labor at the level of the brim, as in normal, rises higher in the abdomen; the longer the contractions continue, the greater the part of the child forced into this lower segment, the thinner and longer becomes the cervix. It may be so thinned as to be mistaken for the vagina. Dr. Garrigues reports a specimen of ruptured uterus referred to him for examination in which several physicians who had previously examined it had made this mistake and pronounced it a case of rupture of the vagina and not a rupture of the uterus.

As the cervix becomes thus stretched out, the uterus thickens, and "fits like a cap" upon the child. In this condition a very slight force may be sufficient to precipitate rupture—the introduction of forceps, an attempt to turn. We can now see how ergot, by increasing the contractions, might bring about the rupture.

Understanding these conditions we shall be better prepared to foresee and prevent the accident. Prophylaxis comprehends all the means for preventing or relieving the various conditions upon which it depends. It might properly be said to include the induction of premature labor or Cæsarean section in cases of contracted pelvis. It includes the early rectification of malpositions.

The case reported is a striking illustration of the dangers of delay. In all cases in which there is great resistance to the advance of the presenting part, the condition of the uterus should be carefully watched and art step in to the aid of nature before the thinning of the cervix has advanced to a dangerous degree.

When the case has advanced to the condition in which the womb is prepared for rupture, every moment of delay adds to the danger, at the same time there is peril in any attempt at interference.

We may easily understand how the accident may happen to the most skillful accoucheur if he has not seen the case early, and we should therefore not be in haste to censure one who has had the misfortune to meet with it.

The utmost caution must be exercised, whatever proceedings are determined upon.

We have already seen how many cases of rupture during operative procedures a single writer has been able to collect. It is evident that turning is especially dangerous, since it involves still greater stretching of the cervix by the introduction of the hand and the revolution of the child.

Kucher, in an article on the prevention of rupture, in the *American Journal of Obstetrics*, 1881, advises decapitation in impacted shoulder presentations, as it is less dangerous to the mother. The child, as a rule, is already dead.

When the rupture has occurred the method of delivery must depend upon several circumstances. The rules formulated by Playfair are essentially those of all our later textbooks:

"(1) If the head or presenting part be above the brim and the fœtus still in utero, forceps, turning or cephalotripsy.

"(2) Head in the cavity, forceps or cephalotripsy.

"(3) Fœtus wholly or in part in the abdominal cavity—gastrotomy."

The *American* editor, Robt. P. Harris, advises opening the abdomen, even after delivery *per vias naturales*, cleansing of its cavity and suturing the uterine rent. Lusk gives the same advice in case the rent has not closed by contraction of the womb.

Jolly's statistics (Playfair) give the result of different methods of treatment as follows:

	No. cases.	Died.	Recovered.	% recovered.
Expectant	144	142	2	1.45
Extraction p. v. n.	382	310	72	19
Gastrotomy	38	12	26	68

Dr. Trask's statistics place the per cent. of recoveries after gastrotomy at 86 per cent., which is certainly too high. Harris for the U.S finds the per cent. of recovery after laparotomy to be $53\frac{11}{15}$.

The case should never be abandoned undelivered, notwithstanding the fact that some women have recovered. Of 115 cases reported by Trask undelivered, 23 per cent. have recovered, while of the 207 delivered, 37 per cent. have recovered.

From German sources very favorable results are reported from the treatment after delivery by drainage.

A double drainage tube is inserted through the rent into Douglas' pouch. After 48 hours, in which the pouch has probably been shut off from the general cavity by inflammation, antiseptic injections are used.

Kroner (*Centralb. f. Gynäk.*, June 14, 1884) reports 47 cases with 22 recoveries. In none of these cases was laparotomy made. Most of them were treated by drainage and antiseptic injections.

Frommel, Graefe and others have also reported success by this method of treatment. It is no doubt the treatment which should be adopted when abdominal section is not made. The latter is the method which has so far given the best results, and which may be expected to make a far better showing when it shall become the established rule to operate early, and without efforts to first extract by the natural passages.

In the case above reported the woman when seen was too nearly exhausted for any plan of treatment to offer more than a forlorn hope. Yet it may be questioned whether that desperate chance would not have been better had laparotomy been made.

Gastrotomy does not materially increase the shock—in fact, in case any considerable part of the child has escaped into the abdominal cavity, or in most cases in which delivery through the natural passages is difficult, it would be less than in the application of the forceps, the cephalotrite, or turning. It has the paramount advantage of allowing thorough cleansing of the peritoneal cavity and suture of the uterine rent.

DISCUSSION.

Dr. Trush said he endorsed the views of the essayist as regards the etiology of the affection, and also agreed with his treatment of the case. The immediate cause of the rupture might have been the fall of the woman on her knees, the malposition being the predisposing agency. Had the latter been corrected in time the accident would probably have been avoided. It could not be positively stated that there was disease of the uterine structure but the speaker thought there was ground for the be-

lief, that it had been softened by pressure against the symphysis and that very likely it gave way when the hand was introduced for the purpose of turning. It has been shown by Bandl and others that the rupture occurs almost always in the thinned out cervix and may be both longitudinal and transverse. The body of the uterus is usually too thick for rupture; consequently the accident is not likely to take place above the ring of Bandl. Rupture of the uterus occurs much more frequently in multipara than primipara and for the following reasons; (1) on account of the greater friability of the uterine tissues; (2) the greater mobility of the uterus owing to the diminished resistance of the uterine ligaments to the upward movement of the womb and consequent elongation and thinning out of the cervix; (3) on account of the relaxed condition of the womb and the greater tendency to malposition of the child.

In the case reported, the physicians in attendance certainly did wrong in leaving the patient without, at least, attempting to deliver the woman either by turning, or failing in that, by decapitation. If the greater part of the child is in the abdominal cavity, laparotomy is doubtless the best treatment, but if the reverse is true and it is still accessible in the pelvis, either the forceps should be used, or version or craniotomy be first attempted. If, however, turning is likely to prove very difficult, laparotomy is probably the best means of delivery. Should the child be dead, as it usually is, there need be no hesitancy in mutilating it. Knowing that these procedures are comparatively harmless to the mother they deserve under such circumstances, serious consideration. The only difficulty to be apprehended in decapitation, is the escape of the head of the child into the abdomen of the mother, necessitating in that event at least the operation of laparotomy. In all cases of rupture of the uterus when the presenting parts are accessible, and the child has been delivered per vias naturalis, drainage ought afterward be resorted to.

Dr. Trush also depreciated the use of ergot during the first and second stages of labor, except in some very rare instances. He also gave ergot for the same purpose as the previous speaker but then only after the delivery of the placenta.

Dr. Cleveland approved the views and treatment of the essayist as well as the remarks of the previous speaker (Dr. Trush). He did not know the relative frequency of the accident, but he believed rupture of the uterus occurred much oftener than the statistics show. He saw but one case and that was not reported, not from a desire to conceal it, but simply from a neglect to publish it. In this case two agencies brought about the accident: (1) malposition of the child and consequent lingering labor exhausting the patient, (2) the administration of ergot by the midwife in attendance before the arrival of the physician. The latter is especially a dangerous element when turning is to be preformed. Ergot ought, as a rule, not to be given before the expulsion of the child or even

the placenta, except under very exceptional circumstances. The only instances in which the speaker resorted to it early in labor was in those cases in which he knew from experience that the after pains became very severe. He noticed that in such cases ergot had a mitigating effect on the after pains. But even then he did not administer the drug until the os was well dilated and the head low down in the pelvis; in short when there were no complications.

Dr. Reamy said that the enormous preponderance of multipara over primipara in incurring a liability to rupture of the uturus shows that in the former we find the most predisposing causes for the following reasons. In multipara the uterus is more likely to be diseased, not only the whole organ, but also certain points in its structure, more especially the cervix. In other words the cause may be, at least as far as the womb is concerned local as well as general. We know that this condition of the uterus is one of the elements of subinvolution, in consequence of which the structure of the uterus is less firm, and the size becomes so much greater as to allow a disadvantageous position of the child. In addition to this we may have irregular contractions, favoring a rupture. As regards treatment circumstances must determine the propriety of drainage against laparotomy. When the tear is such that drainage through the vagina can be readily effected it is quite as promising as laparotomy; this is especially the case when the rent is posterior. But when it is anterior, so that a discharge of blood with other material may take place in the peritoneal cavity, it is better to perform laparotomy, cleanse out the cavity and stitch the rent of the uterus. Future statistics will undoubtedly show a change in favor of laparotomy on account of the greater cleanliness resorted to in opening the abdominal cavity. In former, cases where laparotomy was performed, certainly not in one half was the cleansing so thorough as at the present time.

The speaker was also of the opinion that the accident occurs much oftener than is reported, owing frequently to the injudicious use of ergot and untimely use of the forceps, before dilatation is sufficient. The cervix is undoubtedly very frequently torn and this tear not recognized after the forceps have been applied. As regards the use of ergot he too was of the opinion that it is a dangerous element. He never gave it prior to delivery of the child or even placenta, and he did not recollect more than three cases in fifteen years when he gave it prior to this time. There might be indications for hemorrhage, etc. The speaker often wondered that rupture did not occur more frequently considering the frequent use of ergot by midwives and others. He thought since that perhaps the ergot has some preserving power in condensing the muscular fibres of the uterus in such a manner as to bring on a tetanic contraction so that further action is brought at a standstill giving the uterus a period of rest. Often undoubtedly death is laid to the charge of puer peral fever

when really a ruptured uterus unrecognized, was the real cause of death, the fever being traumatic and septic. He had recently seen in consultation a fatal case where the auterior cervical wall had been torn through, the rent extending above the os internum, opening the peritoneal cavity. The injury had not been detected, though several days had passed.

Dr. Zinke said that the concluding remarks of the previous speaker reminded him of a sad experience he had some time ago. A year ago a young woman began to suffer hemorrhage due to placenta previa while she was six months pregnant. These hemorrhages continued during the seventh month. A midwife was called in and administered ergot. In the eighth month the speaker was summoned and tamponed the vagina which arrested the bleeding for a few days. The os was now dilated to about the size of a dime. A recurrence of profuse hemorrhage, however, necessitated a speedy delivery. Chloroform was administered, version performed and the woman delivered of a living child. The os was very rigid and the speaker was surprised that he had no more trouble, after the body was delivered, in extracting the head. Immediately after delivery the woman complained of much pain in the left side just above the pubes. This gave no further trouble until a week later when the pain became more severe and hardness and swelling appeared in this region. Hot fomentations were applied externally, quinia given internally and just enough morphia to quiet the pain. About this time the child died and the mother's condition became more serious. No fluctuation, however, could be felt, but the pain continued to remain so great that the quantity of morphia given could not be reduced. On the ninth day the patient had an urgent call for stool, the speaker gave an injection which moved the bowels, but this was attended also with a severe hemorrhage from the uterus. A digital examination detected nothing; ice was put in the vagina, cold applied over the uterus and ergot administered. This stopped the hemorrhage, but relief was only partial as the woman died of septicemia on the eleventh day. The post mortem examination revealed a rupture of the uterus in its lower and left anterior section, not implicating the peritoneum, the cervix was split through, and the cellular tissue filled with blood. An abscess was found developing and a rent of the uterus was reopened by the motion of the bowels. The uterus had been ruptured during the delivery and the rent was about healing, when the renewed rupture caused by the action of the bowels brought on renewed hemorrhage. Death occurred from septicemia and exhaustion.

Dr. Wenning directed attention especially to the unreliability of statistics. Whilst Harris estimates one rupture of the uterus to four thousand deliveries, other authors give one in three thousand, one in two thousand, and one observer mentions one case in every six hundred. There are several sources of error. First of all there is no doubt that many cases are not recognized, and if recognized are not published on account of

their fatal termination. The mortality is so great that an escape from death from this cause (if recognized) is promptly reported, whilst the many fatal ones are not recorded. Secondly, the most reliable cases are derived from hospital practice; which of course can not give us a true estimate of the occurrence of cases in private practice, owing to the difference in character of the subjects. For the same reasons above stated it is difficult to compute the mortality rate, the successful cases being reported, the unsuccessful concealed. Harris, out of 40 cases in America, records 21 recoveries, a per centage of nearly 54. This is regarded by all authorities as too high. Other observers place the mortality rate at 85 to 95 per hundred. This is probably nearer the truth. The greater liability of rupture of the cervix, the causes, etc., have all been mentioned. The speaker would only call attention to the fact mentioned by Bandl, that a rupture is more likely to occur in a moderately than in a greatly contracted pelvis, for if the rim is so narrow that the head cannot enter the pelvis, the neck of the womb is not subjected to so much pressure as when the head can descend some distance but is unable to proceed any farther. In the latter instance the elongation of the cervix and the compression of the tissues are greater than when the head can not pass the rim of the pelvis. Here also, the condition is more readily recognized, and means of artificial delivery, as craniotomy or Cæsarean section, sooner had recourse to.

Dr. Reamy remarked that he could not see anything extraordinary in the case just reported. The fact that the gentleman who made the report was a competent observer left no doubt that he heard what he supposed to be a placental sound, but this was in reality not placental, for it is not possible when the child is dead. There are different theories to account for this placental sound. Dubois taught that it was emitted by the current of the blood in the utero-placental veins. Some authorities hold that it is due to the same cause as the murmur in the carotids, etc., in the patients: a diminution of red blood corpuscles. This, however, is pathological and may be heard at any point in the circulation. Another explanation given is that the large vessels behind the uterus transmit the sound; consequently it is not uterine at all. Others maintain that the sound is in the uterus. The true cause is not yet determined. The arguments for the different theories are not all tenable. Against the view that the sound lies behind the uterus in the deeper vessels, is the fact that it is transferred. On the other hand, although in some respects the blood of a pregnant woman resembles that of a chlorotic patient, if this theory were correct, we could localize the sound where it could not be heard before.

Dr. Trush thought any large congeries of vessels would cause this so-called utero-placental souffle; for he once auscultated an enormous nevus and on that occasion he heard a sound perfectly similar to the uterine

souffle. He was of the opinion that, whilst the origin was at the site of the placenta it was not in this structure alone but also, and perhaps mainly in the adjacent uterine wall. The speaker had repeatedly made the observation by auscultation that the sound emanated from the placental site. That it had been heard even after the placenta was removed or detached, simply showed that it was produced to a certain extent in that part of the uterus itself. It was synchronous, with the natural pulse, consequently was not a fœtal sound at all, and might therefore be heard just as well after as before the death of the child, because the maternal circulation was not necessarily thereby destroyed; a placenta might continue to grow even after the death of the fœtus.

Dr. Underhill said that the authorities are not agreed as to the cause of the placental sound. It is usually believed not to arise from the placenta, but from some place outside of it; some say it is in the uterine wall, others that it is outside of the uterus. It may presist after delivery of the placenta, even after several days. It is also heard with other structures as the carneous mole, uterine fibroids, etc. At any rate the name is a misnomer.

Dr. Reamy replied that everybody knows that the so-called placental bruit is synchronous with the mother's; hence the maternal blood really produces the sound. It is also well known that there is no direct communication between the vessels of the mother and those of the child; there is, therefore, claimed foundation for denial that the sound is fœtal in any way but purely maternal, and as intimated by the previous speaker, not necessarily influenced at all by the fetal conditions. That a placenta may continue to grow even after the death of the fetus, in some rare cases, is well known, but is no proof that the origin of the sound in question is in this structure or in any part of it. He was not aware that in any case, where the placenta has so continued to grow, the sound has been heard. As already remarked, in other morbid conditions, the so-called placental murmur may be heard. Moreover, a sound corresponding to this, both in character and location, has by different observers, the speaker included, been heard after the placenta was delivered; consequently in these instances at least, the placenta could not be the cause of the sound. Granting that in any cases the sound is properly placental or utero-placental, it seems reasonable that the full placental circulation should be necessary to its production. It is, of course, quite elementary knowledge, that when the blood ceases to circulate in the cord, the fœtal part of the placental circulation is obliterated. So that placental circulation, minus the fetal circulation, is morbid; and the uniformity with which the sounds in question can be heard, in normal cases of pregnancy, implies at least that it is not a locally morbid condition. It may be that the chorionic tufts pushing out into the so-called uterine sinuses, as they do, would in most instances, so modify the circulation as

to explain the sound. Assuming it to be placental, which, of course, all understood, he did not believe it to be.

Dr. Trush agreed that part of the circulation is fetal, but the sound we hear is not synchronous with the fetal pulse but with the mother's circulation (pulse); it is, therefore produced by the circulation of the maternal blood in the placenta. The speaker saw the placenta, the size of that which accompanies a nine months' fetus, when the fetus perished at five months. So long as the placenta remains attached to the uterus what will hinder the continuation of the circulation?

Dr. Illowy could not understand how this illustration could be made applicable to the case reported; for, if he remembered rightly, the reporter of the case said that the placenta had undergone decomposition as well as the fœtus itself.

Dr. G. S. Mitchell thought the strongest argument against the placental origin of the sound was the fact that it is heard also in the presence of fibroid tumors.

Persistence of the Placental Souffle after Death of the Fetus.

Dr. C. O. Wright reported the following case for another physician:

Mrs. A. K., at the beginning of the seventh month of utero-gestation, was attacked with acute tonsilitis of the glands. The inflammation progressed unfavorably and terminated in suppuration, the pus being evacuated by the use of the knife on April 15th. The patient complained of cessation of all fœtal motion for several days past. As there had been considerable fever of her system coincident with the formation of the tonsilar abscess, the idea was entertained that the vitality of the fœtus was lowered, but that it still was alive.

To render more certain the actual fœtal condition, an examination over the uterus was made. Cold was applied to the surface of the abdomen, but it failed to excite the least motion of the fœtus. Auscultation was the next means employed to develope the usual signs of pregnancy, so far as sounds aid only. No difficulty was experienced in discovering the placental murmur which was found most distinct in the right iliac region, and just where the maximum intensity centred there was considerable tenderness to moderate pressure. A careful exploration for the fœtal heart sound proved fruitless, as it was not recognized. The examination was suspended for this time, but the notion remained that a later attempt would be more successful. Eight days from the first examination the second trial was undertaken, as up to this time no movement had been felt. The placental murmur now showed that the sound reached over a less area, and that it had a softer tone. No fœtal heart sound recognized six days subsequently. She was found in labor and in about twelve hours a dead fœtus was expelled,

During the progress of her labor the membranes were found intact, but ruptured a few minutes before the fœtal expulsion. Maceration of the fœtus had progressed to the extent that the cuticle could easily be stripped off the skin, the integumental surface was everywhere more or less blackened. The placenta and cord corresponded very closely in degree of decomposition to that of the fœtus itself.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, June 4, 1885.

The President, B. F. Baer, M.D., in the Chair.

Dr. E. R. Bernardy contributed the following on

Bin-Iodide of Mercury as a Disinfectant in Obstetrics.

My attention was first attracted to the use of the biniodide of mercury as a germicide by Dr. Migual who published in *L'Annuaire Meteorologique de Montsonn's* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, the biniodide being nearly three times as strong as the bichloride. In his table of disinfectants he places the bichloride the fourth on the list. To a litre of sterilized beef-broth, he found it required 0.025 grammes of the biniodide of mercury to keep the broth pure; while 0.070 grammes of the bichloride of mercury was necessary to produce like effects. This shows that bacterial life is impossible in a solution of one forty thousandth part of the biniodide, while of the bichloride it requires the one fourteen-thousandth part. I was so forcibly impressed with his experiments that I determined to give the biniodide of mercury a trial in obstetric cases where it would be necessary to use an antiseptic. The following are the cases in which it was used.

Case 1. On February 7, 1885, I was requested to take charge of Mrs. D., who had been confined about six weeks previously. It had been her second confinement, the duration of labor had been short and delivery natural but an extensive laceration of the perineum had occurred. No attempt had been made to bring the parts together by suture. On the third evening she had been attacked with severe frontal headache and chills, followed by fever with great tenderness over the region of the uterus. There being no improvement in her condition, her medical attendant was discharged; another called in, who gave such an unfavorable prognosis that he also was requested to cease his attendance. I was finally called in on the above date. The patient had well marked symptoms of septic poisoning, pulse 130 to 140, small and thready, and disappearing under pressure of the finger; temperature 104°–105°; slightly delirious, constant vomiting; abdomen swollen and excessively

tender; uterus enlarged, extending fully three inches above the pubis. In the right side this seemed to be a growth extending up into abdomen, tender on pressure. On making a vaginal examination I found the os dilated so that my index finger could readily enter the uterus. Its withdrawal was followed by a gush of highly offensive matter. The uterus was surrounded by organized lymph and was immovable. The mass on the right side was easily detected and was continuous with the lymph surrounding the uterus. The vagina was hot. The perineum was torn to the anus; the surface raw and secreting an acrid matter, which scalded the surrounding parts. The urine was dark, on standing a reddish material settled to the bottom, it looked like blood corpuscles. Dr. A. E. Roussel examined the specimen and reported it to be slightly acid, no albumin nor sugar; under the microscope occasional pus corpuscles, and swarming with bacteria. In conjunction with internal treatment, intra-uterine injections were made three to four times a day, I first used a solution of bichloride of mercury, one to two thousand. This was continued for three days without any marked results. The discharges continued as offensive. On the fourth day the bichloride was substituted by a one to four thousand solution of biniodide of mercury. Within twenty-four hours an amelioration of all symptoms took place, the pulse fell to 100, temperature 101°, urine became clear, and the discharge odorless. The injections were continued for ten days, their frequency being gradually reduced. The uterus returned to almost its normal size and the lymph was gradually absorbed. The patient recovered.

Case 2. March 19, 1885, I was called to attend Mrs. W. in her first confinement. On my arrival, found she had been in labor several hours, examination showed the os perfectly dilated, bag of waters protruding, vertex presentation, first position, ruptured the amnion. The vagina near its outlet was roughened with venereal warts, these spread also over the vulva. Labor progressed rapidly and the second stage was happily ended. After wasting nearly an hour, making compression on the uterus, I made slight traction on the cord and while doing so, felt, with my hand upon the uterus, a cup-like depression of the fundus take place. This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer; on introduction of the hand I found the placenta completely adherent, one could hardly say which was uterus, which placenta. After considerable trouble, I at last succeeded in detaching the placenta; it took fully three-quarters of an hour. On making a second examination to ascertain if all had been removed, my hand came in contact with long shreds hanging from all sides of the uterus; the more I scraped, the more there seemed to be. I gave the patient f ʒij of the extract of ergot. The patient did well for two days, when toward evening she complained of a chill and severe frontal headache. I gave her quinia sulph. gr. x with morph. sulph. gr. ¼ at one dose,

washed out the uterus with 1-to-4,000 solution of biniodide of mercury. The pulse was 115, and temperature 102°. The discharge was highly offensive. The injections were repeated every four hours. On the evening of the next day the pulse was 98, temperature 100°, discharge odorless, and the patient was perfectly well in ten days more.

Case 3. April 23, 1885, I was requested to call at once to see Mrs. K., who was reported in imminent danger of death. This was her ninth confinement. The history of the previous ones, with one exception, was not good. Her labors were natural, but were followed by terrible flooding and protracted convalescence. I found the patient in an attack of puerperal convulsions. I gave at once grs. xxx of potass. bromidi and grs. xx of choral hydrate, this dose was repeated in half an hour; ten minutes later another convulsion occurred. I then bled the patient freely. The os uteri was somewhat enlarged, the cervix soft and dilatable; vertex presentation. Dr. Curtin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix and deliver. The forceps were applied, and traction made at intervals. A living child was safely delivered. Continuous pressure was maintained over the uterus, but after the expulsion of the placenta the uterus did not contract until it had been washed out with hot water. The bromide and chloral was continued every two hours and no more convulsions occurred. The patient did well up to the fourth day when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus, no chill or fever. The uterus was thoroughly washed out with a solution of the one-to-four-thousand biniodide of mercury. Within twenty-four hours the discharge became odorless, and the tenderness over the uterus had disappeared. The patient recovered after a tedious convalescence.

In these cases it will be seen that the biniodide was prompt in its action, markedly so in Case 1, where the bichloride and the biniodide were both employed, the result being decidedly in favor of the biniodide. Naturally, it will be said, here are only three cases from which deductions are to be drawn and it is only after it has been carefully used in a large number of cases that its efficacy can be proved. It is for this reason that I call the attention of the members of this Society who are in a position to give it a fair and impartial trial, and at some future time give their investigations.

I have found the 1 to 4,000 solution of the bromide, non-irritating, I have used it extensively in my gynecological practice, and in washing out pus cavities with good results. In it we have a preparation where the smallest amount of drug is used with results far exceeding those of any other antiseptic. On account of the small quantity of mercury there will be less chance of salivation.

The method I have procured in making the solution is: Take three and a half grains of the salt well triturated in a mortar and rubbed, with one quart of boiling water slowly added, giving a solution of one to 4,390.

Since writing the above I have seen in the *Philadelphia Medical Times*, May 16, 1885, that Dr. Panas, eye surgeon of the Hotel-Dieu uses 1 to 25,000 solution of bromide of mercury in eye cases. He makes the following statements, "After a number of experiments, I have convinced myself, that a solution in water 1 to 10,000 of the bichloride, or a similar solution 1 to 25,000 of the biniodide of mercury is much superior to any other antiseptic solution employed in eye surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

Dr. Montgomery's experience had led him to the conclusion that bichloride of mercury as a disinfectant was far more effective than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever treated with bichloride injections only three deaths occurred. This success was attributed by the Hospital staff to the use of the bichloride. Dr. Montgomery in private practice follows the plan of Dr. Garrigues of New York, and avoiding intra-uterine injections after labor, applies pledgets wet with a bichloride solution over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution. This sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cases shows an equal if not better antiseptic in the bichloride of mercury.

Dr. J. V. Kelly some years ago had several fatal cases of puerperal fever and about twenty-five cases that got well. The trouble commenced in a case of abortion in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas, and at that time the relationship of puerperal fever and erysipelas were not known to him. He was on the point of giving up his practice and leaving the town, and he consulted Dr. Goodell on that question. Dr. Goodell discountenanced such action, but advised him when attending an obstetrical case to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail brush thoroughly. Since that time he washes his hands in turpentine every day, and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

Dr. Parvin said:—As a reference has been made by Dr. Montgomery to my having used corrosive sublimate vaginal injections in the cases of puerperal septicæmia under my care in the Philadelphia Hospital during

my term of service last year, I will refer to the antiseptic treatment in the cases occurring the present year. When I took charge of the obstetric department on the first of January, I found five recent cases of septicæmia; two of these patients died; one of the two had apparently recovered and then was attacked by pneumonia—quite possibly this pneumonia had a septic origin. Then there were at least seven other cases, but all of these, as well as three of the original five, recovered. Injections of corrosive sublimate, 1 to 5000, were used in all cases immediately after labor; the external parts were washed, too, with a similar solution; this injection was repeated twice a day in all cases for the first week after labor, while it was used often in those having septicæmia; intra-uterine injections were used only when vaginal injections failed to correct the offensiveness of the discharge, but as is well known there may be serious, even fatal cases of septic disease though the lochial flow is not at all offensive.

In private practice, after once washing out the vagina thoroughly with this antiseptic solution immediately after labor, this need not be repeated unless symptoms demand it, but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please, to this treatment the use of antiseptic napkins, a practice pursued by Dr. Montgomery at the Philadelphia Hospital so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor.

He has had no experience with the biniodide of mercury, and does not know that it will supersede the bichloride. The argument in its favor is as strong as those successful cases can make it, but there are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority.

In one of the doctor's cases labor was induced apparently on account of eclampsia. Now is this the best treatment? Obstetricians are by no means agreed, some of the best condemning the treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it.

Dr. Montgomery uses the bichloride solution as an external wash only, not as an injection. He thinks the records of the hospitals in which injections are used will not show as good results as those in which they are omitted, if septicæmia be not present.

Dr. Willard had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic solutions made with a 1 to 1000 solution of bichloride, but in consequence of what was written about the advantages of stronger solutions he increased the strength of his dressings to 1 to 500, and within twenty-four hours the stools contained bloody mucus, and were small and griping; there was vesication about the wound and around the limb under the dressings. Entirely dry dressings had been used, but they had been

moistened by pus and serum from the wound. He does not see the advantage of strong solutions in serum as 100 or 75. The serum is a decomposable substance, and an uncertain portion of the antiseptic agent is destroyed by it. Weak solutions in boiled water seem more reasonable and answer every purpose.

Dr. Longaker had been much interested in the third stage of labor, and would like to hear how Dr. Bernardy removed the placenta in the adherent case narrated by him. He has been using Crede's method with much satisfaction. He thinks the hand should be kept out of the parturient canal as much as possible. He does not need vaginal injections after labor, but depends upon outside washes. He finds that the temperature rarely rises during the puerperal period, even after instrumental delivery. He thinks care during the third stage will avoid the necessity for antiseptics.

Dr. Parish agrees with Dr. Parvin's views. He has found a solution of 1 to 1000 of bichloride irritating, and he now uses 1 to 2000 or 5000. Strong solutions cause an appearance resembling erysipelas or inflammation of the derma. Injections are not necessary in any case where the surroundings are cleanly and the patient a multipara, he does not use them; but in primipara with contusions or lacerations, and when version or instruments have been employed, he is in the habit of injecting a weak solution of bichloride immediately after delivery, but he does not repeat it, and simply washes out the vagina. Cleanliness of hands, instruments and nurse is the most important point. He has never had any trouble in private practice.

Dr. Bernardy, in closing the discussion remarked that he thought he had a far better antiseptic in biniodide than the bichloride. He had used the former in surgical cases also, washing out pus cavities, and always with good results. He does not use intra-uterine washes in every case of labor. He has attended since the first of the year about seventy cases and he has employed the intra-uterine injections in only the three cases detailed. In every case of labor he uses carbolic acid soap to cleanse his hands and arms and the external genitalia of the patient. The eclamptic patient had reached or passed her full term, and there was no reason why the child should not be removed. In the case of adherent placenta it was pulled off forcibly, and a shreddy lining was left in the uterus as no line of separation had formed.

He believes that the dangerous consequences of passing the hand and arm into the vagina and uterus are much exaggerated, and he does not hesitate to do so when the exigencies of the case demand it.

Gestation in a Sarcomatous Uterus Simulating Extra-Uterine Pregnancy.

By *Dr. Bernardy.*

October 3, '84, I was requested to visit Mrs. McG., delicate, age

about thirty, married six months. She was said to be suffering from a cold. I found the patient up, temperature 105°, pulse 130, with a high fever and a severe cough. Examination of the lungs revealed double pneumonia. At the same time noticing the abdomen prominent, I inquired and was informed that pregnancy was five months advanced. The abdomen was rather large for that period.

On Sunday, October 5th, she complained of a sharp pain in the right inguinal region, the pain was excruciating and demanded the administration of large doses of morphia before relief could be obtained. I found the right inguinal region filled by an immense growth, reaching almost to the lower border of the liver. The uterus, or what appeared to be the uterus, was enlarged and pushed well toward the left side. On vaginal examination I found the right side filled with a growth. At first I thought I detected fluctuation, but closer examination showed it to be hard to the touch. The uterus was jammed down toward the left, and was immovable, the neck somewhat absorbed, the os tilted up behind the pubes. To reach it the finger had to be passed well upward. It was closed and soft.

The patient had never had any uterine trouble, menses always came without pain: they never appeared after her marriage, which occurred one week after a period. Her health remained good for three months after marriage, when while out walking, she was suddenly seized with a sharp, lancinating pain in the right side of the abdomen. The pain was so great that she almost fainted, but being a woman of strong will, she finally, after suffering terrible agony, reached home and went to bed. No physician was called in; next day there were sight traces of blood on her night dress. Under absolute rest the pain subsided, and at the end of a week she was about her household duties. The pain in the side returned if she over exerted herself. Sexual intercourse was painful and was followed by traces of blood the next day.

Believing that the symptoms pointed either to extra-uterine pregnancy or a tumor complicating pregnancy, I asked Dr. Goodell to meet me. By the time the consultation was held, October 8th, a serious attack of peritonitis had commenced. This complicated matters, as a close examination was impossible. On account of the distended and painful condition of the abdomen, it was impossible to trace any outline of the growth or uterus. In was decided that the symptoms and history pointed to extra-uterine pregnancy, but that undoubtedly the uterus contained something, whether a tumor or a child, in the present condition of the patient it was impossible to decide. The leaning was toward a pregnant uterus. By October 16th the peritonitis was under control, the lungs no better.

Oct. 19th I was sent for, the messenger stating that there was a renewal of the peritonitis. I found the patient in active labor, the fetus descending rapidly. In half an hour labor was completed. I readily

detected the large growth filling the upper portion of the right side of the pelvis; the uterus was surrounded by a hard growth. The cervix was hard. From this time the lungs improved, but she remained extremely weak and there was a constant dribbling of blood from the vagina. November 3d the growth was still present and the cervix hard, and I began to think of malignant disease in connection with the tumor. I had applied, night and morning, to the abdomen, thoroughly, belladonna and iodine, equal parts; this seemingly had the effect of causing the absorption of the large growth, but the mass surrounding the uterus remained the same. Nov. 27th vomiting occurred and was arrested with difficulty; a bloody discharge from the vagina and a constant sore feeling over the region of the uterus, which was still toward the left side. The patient's condition was not good; she was extremely weak; the slightest exertion would exhaust her and bring on bleeding from the uterus. Dec. 26th I found her suffering from pleurisy, the left pleural cavity full of fluid. Jan. 1st abdominal dropsy had set in. A consultation with Dr. Goodell was held. A positive diagnosis of malignant disease was made. *Prognosis.*—Death at any moment. She died the same evening while talking to her husband. *Post mortem* examination by Dr. E. A. Roussel, twenty-four hours after death. Patient greatly emaciated. *Thorax.*—A large amount of effusion completely filling up the left plueral cavity, while the cavity of the right side was partially filled; both lungs were compressed upwards. No adhesions. On section the lungs appeared mottled, and were hepatized in general appearance but were otherwise healthy. *Heart.*—On opening the pericardium found a moderate amount of serous fluid vegetations on mitral valve—weight 11 ounces. *Abdomen.*—Entire cavity was greatly distended with a dark fluid full of broken down lymph. The intestines were forced upwards; there were slight evidences of begining peritonitis. A portion of the ileum on the right side presented a black, unhealthy appearance, bordering on gangrene. The uterus was increased in size. The outer surface presented an irregular, mottled appearance; large veins covered its surface; at the fundus there appeared a spot about one inch in diameter, of a bluish tinge. On pressure by the finger the surface readily broke; underneath was a cavity, about the size of a hickory nut, it did not communicate with the interior of the uterus. On opening the uterus its cavity was found to be almost obliterated; the tumor seemed to have entirely absorbed the true uterine tissue with exception of the neck. In the body of the tumor were observed small masses or growths varying in size up to that of an egg. The ovaries were small and seemed to have participated in the general disease. Microscopic examination proved the tumor to be of the adeno-sarcoma variety.

At first I was convinced that I had a case of extra-uterine pregnancy; but the peculiar hardness of the tumor made me doubtful. Here was a

patient that had never had any uterine ailment; marries; becomes pregnant; at the end of the third month, without any premonition, while quietly walking, is seized with pain of an excruiating nature in the right side, goes to bed, and remains quiet; the next day blood flows from the vagina. She remains comparatively well for two and a half months more, when she is again suddenly seized with pain in the same side, followed by peritonitis. A tumor is found in the affected side; the uterus is enlarged, but not sufficiently so for a five and a half months' pregnancy, the os giving no signs of that softening which should accompany pregnancy. Could we have a group of symptoms more allied to those of extra-uterine pregnancy?

Dr. J. M. Keating made some remarks on

INFANT FEEDING.

He said. At my request Dr. Charles Potts has instituted a series of experiments which have a decided practical value, and we hope to present them to the society at an early date, in full. I desire to place on record a statement of the results so far reached which appear to be interesting and important. The question often arises: Is it of advantage or not for an infant to be partly nursed and partly bottle fed? What action has milk upon starch, if any? To answer this the following tests were made. (1). Sample of milk composed of the milk of several women. A quantitative estimation of the sugar in it by Fehling's method, showed 6.84 per cent. Ten cc. of this milk was then taken and ½ gram of powdered starch added, allowed to stand at a temperature of 99° for thirty minutes, after which 5 cc., diluted with 45 cc. of distilled water, was tested and showed 5.62 per cent. of sugar. The other 5 cc., after standing sixty minutes, gave 9.09 per cent. (2). Another sample, found to contain 7.14 per cent. of sugar, had a ½ gram of powdered starch as in No. 1. In thirty minutes it gave 9.803 per cent. of sugar in 5 cc. The other 5 cc., after remaining 60 minutes, gave 8.62 per cent. Possibly part of the sugar deposited and was drawn off with the first 5 cc. (3). Another sample showed 6.32 per cent. of sugar, and, after adding the starch as before, gave, in the first 5 cc., 8.19 per cent. The next 5 cc., 7.93 per cent. These investigations showing that the women's milk gave an increase of sugar after digesting with starch. (4). A sample of cow's milk was tested and found to contain 3.87 per cent. of sugar, to this was added a ½ gram of starch to 10 cc. At the end of thirty minutes 5 cc. diluted with 45 cc. of distilled water showed no increase of sugar. (5). A sample of cows milk gave four per cent. of sugar, and was treated as before, but at the end of thirty minutes and then sixty minutes it gave the same result. (6). Another sample of cows' milk gave 3.703 per cent. of sugar; was treated as before with same amount of starch. In thirty minutes 5 cc. gave same result. These investigations showing that cows' milk gave no increase

of sugar after adding starch. Does the acidity of cows' milk prevent the sugar change? Does the sugar change continue in an acid medium? (7). Took another sample of human milk from one woman. It yielded 6.25 per cent. of sugar. Added starch as before. In thirty minutes 5 cc. gave 7.14 and in 60 minutes 5 cc. gave 7.6 per cent. Took 10 cc. of this milk (6.25 per cent. sugar) and added a few drops of c. p. dilute hydrochloric acid, enough to faintly acidulate it, and then added ½ gram of starch and let it stand as before. In thirty minutes 5 cc. gave 6.41 per cent., and in sixty minutes 5 cc. gave 7.35 per cent. of sugar. (8). Another sample of womans' milk without starch gave 6.17 per cent., with starch 7.24 per cent.; 10 cc. of the same, acidulated with hydrochloric acid, c. p., diluted, gave, in thirty minutes, 7.35 per cent. In these tests 10 cc. of Fehling's solution were used with 40 cc. of distilled water.

If future investigations prove the correctness of these statements, we may safely assert that the nursing woman may supplement her breast milk with some well prepared digestible form of food containing a small quantity of starch advantageously, and also that the amylolytic ferment will remain active in the slightly acid stomach of the infant.

W. H. H. GITHENS, *Secretary.*

TO BE CONTINUED.

CHICAGO GYNECOLOGICAL SOCIETY.

Meeting of Friday, May 29, 1885.

The President, DR. H. P. MERRIMAN, in the Chair.

THE NORMAL POSITION OF THE UTERUS END ITS RELATION TO THE OTHER PELVIC ORGANS.

An inaugural thesis on the above subject was presented by Franklin H. Martin, M.D., (Chicago Medical College, 1880), and read by the Secretary, Dr. Edward Warren Sawyer.

The extreme theories of Schultze, Fritsch and Savage were opposed for the following reasons:

1. In extreme anteversion, the wave impulse would strike the posterior broad surface of the body of the uterus, and drive it down upon the bladder and anterior wall of the vagina, while, on the other hand, (the perpendicular theory of Savage), the anterior broad surface of the body would receive the impulse to an equal disadvantage, displacing the uterus backward and driving the cervix downward, while if the uterus occupied the position between these two extremes, the narrow crest of the fundus would receive the impulse in the line of the axis of the uterus and all the force would become equally distributed through all of its supports. Here, too, the organ would not so directly receive the whole impulse, as it would be equally dispersed upon its sides and the pos terior

ligaments and anterior supports, and its lateral attachments would receive, to an equal extent, their portion of the impulse.

2. The manner in which the bladder collapses, to our mind, precludes the possibility, or at least the probability of the uterus occupying normally the position of extreme anteversion. The bladder, when collapsed, or when empty, is a triangular shaped body—not flat like a plate. The base corresponding to its peritoneal surface, the apex corresponding to the urethra. The posterior or interior surface corresponds to the anterior wall of the vagina, to which it is intimately attached; the anterior wall corresponds to the symphysis, to which it is loosely attached. It is readily seen, then, that the bladder distends only in the direction of the peritoneum, or its one free surface. According to extreme anteversion theorists, the free surface of the bladder and the uterus are in apposition. If such be the case, the uterus changes its position constantly, as the bladder normally relaxes or contracts—this seems to us very improbable. We believe that this space is usually filled with the light coils of the small intestines.

3. The broad ligaments receive their external attachments at a point about equidistant from the sacrum posteriorly and the pubic junction anteriorly, in such a way as to divide the plane of the brim of the true pelvis into about equal halves. If the body of the uterus occupies a position in the center of the pelvis on a direct line with the ordinary attachments of these ligaments, which it is at least rational to believe is the case, it occupies a position between the perpendicular of Savage, and the extreme anteversion of Fritsch.

4. With extreme anteversion, the cervix, with the fundus occupying behind the symphysis, would necessarily have to occupy a position far back in the pelvis, within three-fourths of one inch of the sacrum—with a normal conformation of parts; this is impossible without interfering with the rectum.

5. If we take the measurement of Foster and Litzmann into consideration, we can at once demonstrate the impracticability of the position given by Savage—*i. e.*, the perpendicular. The cervix occupies a position, normally at a distance of one and one-half inches from the sacrum, the rectum intervening. It is impossible for the uterus to assume anything like a perpendicular with the cervix in this position, on account of the anterior curve of the sacrum above, which necessitates an anterior version from the perpendicular of at least fifteen degrees.

DISCUSSION.

PROFESSOR W. W. JAGGARD was pleased with the selection of the topic, and its mode of treatment, but did not agree with Dr. Martin in all his conclusions.

Bandl had made a correct statement of the diversity of opinion upon this subject, in his essay on "*The Normal Position and the Normal Rela-*

tionship of the Uterus, and the Pathologico-Anatomical Causes of the Symptom of Anteflexion." (*Archiv. für Gynœkologie, Band, XXVI. Heft*, 3, 1884,) read before the Gynecological Section of the *Versammlung deutscher Naturforscher and Ærete* in Freiburg, September, 1883.

"In the course of time, almost every position of the uterus, with the exception of prolapse, has been accepted as the normal by different anatomists and gynecologists, and particularly by the more eminent ones."

Köllker (1882), from a series of examinations of the cadavers of girls, from ten to eighteen years old, has concluded that the uterus is not bent, nor curved upon itself, but is straight, and that its long axis corresponds with the principal axis of the small pelvis. Its position is variable within certain limits, depending upon the condition of the bladder and rectum. This opinion coincides closely with judgments of Kohlhausch (1854), Le Gendre, (1868), Freund, Carl Braun. (1857), J. Marion Sims, (1855), Langer, (1881). Professor Paul F. Munde, in his recent work on "Minor Surgical Gynecology," favors these views to the extent, that he says, "with the woman in the recumbant position, the examining finger is unable to touch the body of the uterus before or behind the cervix, if the uterus is normally situated."

Bandl, in the paper, to which allusion was made, confirms Kölliker's view. The evidence he furnishes is of a high order. His methods of investigation were :

1. The attentive examination of living women.
2. Examination and observation before and during the operation of laparotomy.
3. The bi-manual examination of the organ in cadavers, before and after abdominal section.
4. The comparative anatomical examination of many *uteri.*

Dr. Philip Adolphus thought, with Emmet, that "there is no common standard by which to determine the proper position for the uterus in all women, but that in each individual there is a point or plane, in the pelvis which the uterus should occupy when she is in a state of health and not pregnant." He referred in detail to Emmet's "normal or health line," and to the pathological character of displacements above or below this line. It was a matter of relative insignificance whether or no the long axis of the uterus coincided with any particular pelvic axis.

In the concrete case the sensations of the individual would indicate a normal or abnormal position.

Professor Daniel T. Nelson said the uterus was fixed in a position of unstable equilibrium by the annular and other ligaments. It could move to a certain degree in every direction, and return to its original normal position. Displacement above or below Emmet's "health line" was productive of symptoms, if the uterus remained fixed in such a position, as was usually the case when violence caused the dislocation. Departure

from the principal axis of the pelvis was a comparatively insignificant moment, viewed absolutely. The vagina and perineum are not primary supports of the uterus, and only assume this function when, as a result of the relaxation of the proper uterine supports, the organ is displaced downwards. This secondary character of the vaginal and perineal support was capable of demonstration by the examination of a woman in the erect position. Upon coughing or sneezing the uterus would descend and receive support from the vagina and perineum, only to gain its original position when the excitant was removed. This remark applied exclusively to normal organs in normal position.

He wished to emphasize the statement that the rectum was not the normal receptacle for the feces. Anatomy and physiology teach that in the normal condition the gut is empty up to the sigmoid flexure. The sigmoid flexure is a sort of valve to retain feces.

He narrated the history of a case of retention of urine in a puerperal woman in which the bladder was displaced toward the left iliac fossa, while the uterus was directed to the right. He would like to ask the Fellows if this displacement, observed in a single case, corresponded with their observations?

Professor Charles Warrington Earle related the history of a case of retention of urine in a puerperal woman, the bladder displacing the uterus upward and backward. Upon the introduction of a catheter, four quarts of urine were evacuated and the pelvic viscera returned to their normal relations.

Dr. Edward Warren Sawyer said the uterus had great latitude of movement antero-posteriorly and laterally; elevation above or depression below the normal plane, even to a slight degree, was productive of pain. The introduction of a pessary, which merely elevated the uterus when partially prolapsed, without altering flexion, was sufficient in many cases to afford complete relief.

While a student in the medical department of Harvard University he had taken plaster casts of the vagina. Such casts were of uniform shape while they differed in size. They were curved, convex posteriorly, concave anteriorly. They were never shaped like an S. The curve did not correspond to that of the anterior surface of the sacrum, but to the floor of the pelvis.

Dr. H. T. Byford thought Dr. Sawyer's experiments were faulty. When plaster of Paris was injected into the vagina with the rectum empty the vagina would act exactly as the rectum would under similar conditions.

Dr. H. P. Merriman, the President, complimented the author of the paper on the careful, judical mode of treatment of his difficult subject.

He agreed with Dr. Adolphus, Dr. Nelson and Dr. Sawyer that elevation above or depression below a certain horizontal plane was of greater

importance in the production of symptoms than deviation from the principal pelvic axis antero-posteriorly or laterally.

The normal position of the uterus is as variable as the quantity of blood lost at menstruation. Every woman is a law unto herself. He referred in detail to Robert Barnes' theory of uterine support, and concluded by recommending Bozeman's plan of columning the vagina when a hard rubber pessary could not be borne.

Professor Christian Fenger, M.D. (Copenhagen, 1867), and Franklin H. Martin, M.D. (Chicago Medical College, 1880), were then elected Fellows of the Society. W. W. JAGGARD, M.D., *Editor.*

2330 Indiana Ave, May 29, 1885.

OBSTETRICAL SOCIETY OF BOSTON.

Meeting of March 14, 1885.

The President, DR. A. D. SINCLAIR, in the Chair.

Dr. Henry P. Jaques, of Milton, reported, by invitation,

A CASE OF TUBERCULAR MENINGITIS: DEATH: AUTOPSY.

The patient was a boy, five years old. He was always well and strong except for a tonsillitis, of which he had frequent attacks. Family history good on both sides.

On December 29, 1884, I was called to see him, and obtained the following history: He had come out to Milton looking and feeling as well as ever. On December 23d, while endeavoring to climb into bed, he fell and struck the back of his head. He cried afteward, but the blow left no mark, and no more was thought of it. The next day, while playing, he fell and struck his forehead. but the blow was no more serious than he had often had before. That evening, Christmas eve, he went to a children's party, but ate nothing unusual, went to bed early, and slept all night. Seeing, and playing with, so many children was unusual for him, but he did not seem excited by it. For a day or two afterward he was constipated and somewhat fretful, both of which conditions were remarkable for him.

On December 29th, the date of my first visit, he had a slight follicular tonsillitis. His pulse and temperature were normal. His head was slightly hot, and he was dull and drowsy. He had had no dejection for two days. I prescribed for his throat and his bowels, and told the family that he was not very sick, though I did not like the drowsiness, which, they said, was unusual. The next day his bowels moved, and I heard no more from him for several days, and thought they had probably taken him back to Boston. On January 2d they sent for their family physician, Dr. W. L. Richardson. He found the child still drowsy and again con-

stipated, but no other symptoms. His throat was not nearly as bad as in his former attacks. He ordered cathartics, to be followed, if necessary, by injections. That evening I was again sent for. I found that the constipation was not relieved, and that the drowsiness had increased to such an alarming extent that he had to be roused before answering questions. His head was hot, and he complained of some pain in the back of his head. His face was flushed, and the eyes vacant and staring. Pulse 64 and strong, and the temperature 99° F. The bowels were moved by injections, and he passed water, though with difficulty. I told the family that there was something more than mere constipation, and advised them to send for Dr. Richardson early in the morning. During the night he slept only at intervals. Vomited once. One dejection, coming away with considerable flatus. Passed water twice freely. He moved his left leg spasmodically, and clenched his hands occasionally. He was uneasy, and moaned. Head hot. Pulse at times intermittent. Gradually he became more and more drowsy, and finally relapsed into a state of unconsciousness.

In the morning I saw him with Dr. Richardson. A careful examination revealed nothing abnormal in the chest or abdomen. The child was completely unconscious. Pupils normal. Temperature 100.6°; pulse 108: respiration 30.

We told the family that the case was very serious, and that it probably was some form of meningitis, and advised them to send for Dr. T. M. Rotch. An ice-bag was applied to the head, and enemata of one ounce of milk and one drachm of brandy ordered every two hours.

In the evening Dr. Rotch, on examination, found no new symptoms except a slight congestion in the right ear in the neighborhood of the malleus. On the back, over the right apex, there was a slight elevation of pitch on percussion, but no other physical signs. Temperature 101.2°; pulse 89, and strong.

Dr. Rotch agreed that the only diagnosis possible at this time was a probable meningitis, though it was possible that the right apex might develop new signs on further examination, and the symptoms be due to a hidden pneumonia.

During the day there was considerable twitching of the arms and legs, chiefly the right side, lasting from ten to twenty minutes, the chest being slightly raised. The pupils were slightly contracted and alike.

During the night he drew his hand across the face with a quick, trembling motion, the right leg being drawn up and the whole body trembling. Occasional moaning and sighing respiration. Temperature, pulse, and respiration not much above normal. When the lips were bathed he partly opened his eyes and made an effort to swallow. Pupils sometimes contracted, sometimes dilated, cheeks flushed, tongue and lips dry. All enemata retained.

Dr. C. J. Blake, having been asked to examine the condition of the ears, found a slight congestion in the posterior canal of both ears, and also in the neighborhood of the right malleus. Dr. Blake thought that the congestion was merely a symptom of the meningeal congestion, and not the cause of the disease. When the speculum was inserted the patient showed signs of consciousness, slightly moving the eyebrows and facial muscles.

On January 6th Dr. S. G. Webber was asked to see the child in consultation. After a careful examination he decided that it was undoubtedly a case of meningitis. Taking into consideration the history of the falls and blows on the head, and the excitement of the children's party afterward, he thought it probably a simple acute meningitis, though there was a possibility of its being tubercular. He recommended the trial of the iodide of potash. The congestion in posterior canals of both ears had diminished considerably. Pain was evidently caused by the examination.

During the next few days the condition varied but little. The enemata were almost all retained. The bowels moved once or twice daily, and the urine was passed regularly. The eyes, usually closed, were occasionally opened, with the eyeballs moving from side to side. The respiration sighing, interrupted, occasionally almost inaudible, then for a time noisy. At times the breathing was suspended for several seconds, bright red spots appearing on the cheeks, which disappeared when respiration was resumed. Patient moaned occasionally, and there was some moving and twitching of the extremities, though no convulsion. Pulse fair, though at times intermittent. The temperature, pulse, and respiration are all noted on the accompanying chart, so I will not recount here the daily variations. The extremities of the right side were absolutely motionless, and did not respond to the usual tests.

January 9th. The extremities became cold, the face very pale, and the pulse imperceptible. This condition lasted fifteen minutes, when he improved in appearance. During the night the breathing grew very rapid, he was restless, moved the left arm continually, and moaned. After some time he opened his eyes, looked round the room, and then became quiet and slept. The next day he was more unconscious, and the fingers were flexed with a very strong contraction of the muscles. Breathing was more difficult, with the nostrils widely dilated at every breath. During the night he seemed fully conscious for some time, swallowed water without difficulty, and the eyes wide open.

January 11th. Ptosis of right eyelid. The pulse irregular, compressible, and intermittent. The left arm was occasionally raised to the head with a quick, spasmodic motion, the child moaning as if distressed meanwhile. Later, his eyes were fixed, pupils dilated, nostrils expanded, and bluish color around nose and mouth. The breathing was very difficult.

During an attack of this kind he had every appearance of being moribund, and each attack was thought to be his last. One of the most remarkable features of the case was the fact that the change from day to day was almost imperceptible, and to one who did not see the child it is almost impossible to give an adequate idea of his condition.

January 12th. The pupils of both eyes were much dilated. The right eye was almost motionless, with ptosis of the right lid, while the left eye moved rapidly from side to side in a circle. The face was livid, with the hands mottled with bright red spots. Later, the left eye became quiet, with a slightly contracted pupil. The next day the movements of the left eye were repeated, the right pupil being dilated and the left contracted. During all this time the enemata were retained, the bowels moved, and the urine was passed. The pulse was so weak that at times it could not be felt at all at the wrist, and the breathing was at times inaudible and almost imperceptible. Respiration sighing. Dr. Richardson and I agreed that it was a case of probable tubercular meningitis, and held out no hope whatever to the family.

January 17th. There was a slight discharge of pus from the mouth, and also from the left eye. During the next day his breathing grew more and more difficult, and it seemed as if he could not possibly last much longer. In the evening, however, his respiration was much easier, and his whole appearance improved. His breath was very offensive, and there was a loud bubbling sound in the throat.

January 19th. The right nostril was much more dilated during inspiration than the left. The forehead was shiny, slightly œdematous, and the veins plainly mapped out. Occasionally he moved his right hip-joint and shoulder, which had been motionless for days. There was another slight discharge of pus from the mouth, and when his lips were wiped he seemed more sensitive to touch than before. During the night his left arm and leg were constantly moved, and he moaned as if in pain. Forehead still œdematous. During the next night he was in a state of deep coma for four hours, then drew a deep sigh and seemed more conscious afterward. Pulse soft, intermittent, and fluttering.

January 20th. He partly opened and shut his right eye, which was very sensitive to light. Breathing was difficult and noisy, and the face covered with perspiration. At 10 p.m. sighing respiration began again and at 10:15 he quietly died.

The case is interesting for the following reasons: The family history is good. The child's previous health was perfect, except for the frequent attacks of tonsillitis.

The diagnosis was complicated at first by doubt as to the part played in the causation of the disease by the blows on the head and the subsequent excitement. The duration of the state of unconsciousness—twenty days—was remarkable, although not unprecedented. Lastly, the enemata

were almost all retained, the bowels moved and the urine passed regularly throughout the disease.

The temperature was taken by the rectum, but on comparison was found to vary but slightly from that taken in the axilla.

The autopsy was made eighteen hours after death, by Dr. W. W. Gannett.

Body medium sized (for age), well developed, much emaciated, slight lividity of dependent portions, rigor mortis present.

Nothing unusual observed about the calvaria or dura, the sinuses of the latter contained partly coagulated blood.

The pia of the convexities of the brain very dry; the vessels minutely injected; the convolutions flattened, the sulci obliterated. The pia of the base, along the chiasma and in the fissures of Sylvius was thickened, and opaque yellowish-gray from the presence of fibro-purulent material in its meshes. In the above situations, also on the under surface of the frontal and temporal lobes, also on the pons and inner borders of the occipital lobes, were to be seen numerous gray, translucent nodules the size of a pins head.

The lateral ventricles contained each about fifty cc. of a slightly opaque fluid. The ependyma thickened, grayish and opaque. The choroid plexuses and velum interpositum markedly injected. In the latter were to be seen several small nodules similar to those described in connection with the pia of the base.

Section of the hemispheres showed nothing remarkable, the puncta cruenta being of about the usual size and number.

The basal ganglia, pons, medulla and cerebellum also showed no appearances worthy of special note.

The heart of the usual size, and so far as its valves, cavities and muscular substance were concerned, showed nothing unusual.

The pleural surfaces on both sides free from adhesions, the pleural cavities contained no fluid.

Both lungs retracted, everywhere crepitant except at apices, where small nodules could be felt within the lung.

On section, at the top of the left lung, was an opaque, grayish-yellow, cheesy nodule the size of a pea, surrounded by a narrow border of gray and translucent tissue. At the top of the right lung were several closely aggregated nodules of a similar appearance, forming, together, a mass the size of a large walnut. Otherwise the lungs showed nothing remarkable.

The bronchial lymph glands were enlarged to the size of filberts, showing, on section a yellowish, opaque, crumbling material.

The spleen was of the usual size, color and density. On section follicles, and trabeculæ fairly distinct, pulp firm, pale red in color. Two or three gray, translucent, sharply defined, slightly projecting nodules, the size of the prick of a pin, were to be seen.

Kidneys not remarkable.

In the lower part of the ileum were several losses of the substance of the mucous membrane, the edges elevated, the bases granular.

Liver showed nothing remarkable.

Diagnosis:—Tubercular meningitis; acute hydrocephalus; ependymitis; tuberculosis of velum interpositum; tubercular nodules in the lungs; tuberculosis of bronchial lymph glands; tuberculosis of the spleen; tubercular ulceration of the intestines.

DISCUSSION.

Dr. W. L. Richardson said that the hygienic surroundings of the patient had always been the best, and the child had been brought up by its parents with every possible care which common sense, aided by medical advice could prescribe. With the exception of slight attacks of tonsillitis, the child had never been under medical treatment. There was, however, one fact in the past history of this patient that might have a bearing on the case, and he would like to have Dr. Gannett's opinion. When the patient was fourteen months old the services of a nurse were engaged, and that nurse remained in care of the patient until last fall, when he was about four and one half years old; at that time her health, which had been failing during the latter part of the spring and summer, had become so poor that she was obliged to leave. She had a cough and lost considerable flesh and strength. She subsequently went to Colorado Springs, where she now is, and her health has considerably improved. A sister at about the same age had died of consumption, and another sister had also died, although the cause of her death was unknown.

Dr. Gannett said that one of the most interesting and important points in an autopsy upon a case of tubercular meningitis was the determination of the source of infection.

Inasmuch as all cases of tuberculosis of the pia are secondary, one should make a careful search in all parts of the body for evidence of primary tuberculosis, either in the form of cheesy nodules or else of nodules made up of growing tubercles.

In the present case the infecting source was evidently in the lungs; there being cheesy nodules at both apices, as described in the autopsy report, surrounded by a periphery of actively growing tubercles and also cheesy lymph-glands.

Dr. Gannett thought it quite possible that a child might be infected with tuberculosis by living day and night with a nurse already tubercular.

Dr. Webber said he was asked to see the patient on the 9th of January. The symptoms were such as to lead to a strong suspicion of tubercular meningitis; but considering the family history and that the child had been perfectly well up to Christmas, also taking into account the falls and consequent injury to the head, it seemed to him the more probable that the disease was simple meningitis. After falls and blows upon the head

there is at times a period of latency, during which there are either no symptoms, or they are very slight. Guided by past experience in this respect he was led to state that while tubercular meningitis was possibly present, he thought the chances were in favor of the simple form of the disease. A few days later Dr. Richardson gave him an account of the progress of the symptoms and it was quite evident that it was a case of tubercular meningitis.

He examined the patient with reference to the *taches cérébrales*, but could not obtain them. In a majority of patients, when the finger nail is drawn across the abdomen, a red line appears after some time, but only slowly and is not very intense. The symptom is of value only when it appears very quickly, within two or three seconds, and is of deep color. The line made with the nail is brighter than when the finger is drawn over the surface. By the side of the red line the skin acquires a paler tint, almost white, as if the smaller vessels were contracted. This sign is of much less value than was formerly supposed.

Dr. C. J. Blake said that, so far as the ears were concerned, both membranæ tympani were clear, normally transparent, and without injection of the manubrial bloodvessels, the mucous membrane of the tympanic cavities, as visible through the membranæ tympani, was also free from injection, and there was, in fact, no evidence of disturbance of the ears.

On the posterior wall of the external auditory canals at the inner third more pronounced in the right than in the left ear, was a circumscribed patch of injection such as is observable in cases of inflammatory process in the mastoid antrum and occasionally accompanying congestion of the middle ear uncomplicated.

Dr. Rotch made the following remarks on the case and also discussed the difficulty of making a differential diagnosis and of giving a prognosis in the early days of the disease:

First, as to the diagnosis of cerebral disease at all, we must remember that there is a wide difference between the symptoms resulting from exactly the same diseases in the adult and in the child; the former presenting, as a rule, symptoms corresponding to lesions of the organ involved, while the latter, owing to the active development and sensitive condition of its nervous system, is liable, no matter by what disease it is attacked, to have such a profound impression made on its nervous centres, that quite frequently actual disease of these centres is simulated, thus for days masking, by their undue prominence, the symptoms of the especial disease, perhaps of thorax or abdomen, which will finally assume control and declare the diagnosis. As illustrating this point Dr. Rotch spoke of cases which had been lately under his observation; in one there was hemiplegia occurring during an attack of simple reflex eclampsia and passing off within a few hours; in another, a child lay for days in about

the same condition of unconsciousness as in the reader's case, as the result of a fall, but no lesion external or internal being discovered throughout this time. Again, there are cases of fibrinous pneumonia, where children lie for days in an unconscious condition and where no lesion can be discovered in the lung, consciousness only returning as the physical signs develop in the lung, and during this period entire uncertainty may exist as to the locality of the disease.

In this connection Dr. Rotch said a few words in reference to his examination of the lungs, which, as reported in the paper, might lead to some misapprehension if left unexplained. The slight change noticed at the apex of the right lung was not at the time considered of any importance, so soon as the possibility of an acute pneumonia developing in that locality was dismissed as untenable, and was not considered as exercising any influence in aid of the diagnosis of the case; in fact, it was supposed to be physiological rather than pathological. Dr. Rotch also spoke regarding the similarity of typhoid during the first four or five days of the disease, the nervous symptoms being so very prominent at this period and closely simulating cerebral disease, as is also the case in certain forms of acute gastric catarrh.

As to the diagnosis of the reader's case, most of the gentlemen who saw the patient concurred in the diagnosis of Drs. Richardson and Jacques, made at the seventh or eighth day, namely, of meningitis, probably of the tubercular form, and, although certain symptoms usually present in a typical case of meningitis were absent and the general constitutional symptoms of progressive emaciation and altered temper which commonly precede the outbreak of tubercular meningitis at this age were wanting—the disease being ushered in by cerebral symptoms in a healthy child, a fact which would usually point toward the simple form of meningitis—yet the general picture of a slowly developing, subacute disease marked by quiescence of symptoms and moderate temperature was very striking when compared with the usually stormy onset and acute development with high temperature of most cases of simple meningitis. Dr. Rotch called attention to a symptom lately spoken of by Koenig, of St. Petersburg, as pointing toward meningitis, though not necessarily of tubercular origin, namely, contraction of the knee-joints on sitting, with complete relaxation on lying down. An instance of this symptom was at present under his observation in a baby apparently suffering from some obscure cerebral disease.

In answer to a question Dr. Rotch said that he did not consider the *tache cérébrale* to be especially diagnostic of tubercular meningitis. He also said that in the Children's Hospital, at Stockholm, a number of autopsies had been made on infants dying of tubercular meningitis, and, with the exception of two cases, tubercular disease had been found in other parts of the body. These two, however, presented an apparently

primary tubercular disease of the cerebral meninges, a careful examination failing to discover any point or infection elsewhere. The difficulty of diagnosis in tubercular meningitis is still further enhanced when we consider that the same well-marked pathological lesions are at times followed by symptoms which do not correspond to those usually occurring and determined by the anatomy of the parts involved; in fact, by a noticeable lack of symptoms.

As to the prognosis of tubercular meningitis, it is probable that every case eventually dies of the disease, but well authenticated cases have been reported where recovery apparently took place, but later a second attack killed the patient, and the post mortem revealed not only the fresh tubercular lesions, but evidence of tubercle of a former period corresponding to the original attack. Dr. Rotch also stated that the temperature in the reader's case followed the usual rule of uncomplicated tubercular meningitis, and was of great aid in the diagnosis, namely, of moderate grade, somewat variable, and becoming high a day or two before the fatal termination. Dr. Rotch concluded his remarks by drawing attention to the difference between tubercular meningitis occurring during the first six months of life and that of older children. In the former, the prodromal symptoms were, as a rule, absent, a sudden onset like that of a simple meningitis occuring in often apparently perfectly healthy babies; diarrhœa was more common than constipation; sinking of the abdomen was rare; the disease was essentially acute, a fatal issue usually taking place in three or four days.

Dr. Wellington spoke of the case of a child twenty months old who had always been considered healthy until its present illness. The family history was good, except that a niece of the mother had died with consumption. When first seen, three weeks ago, the child was sleepy and had vomited a little, the sleepiness increased and vomiting occurred once in twenty-for hours. At the end of the week there was observed stiffness of one arm; but this disappeared in one day; then there was tonic spasm of the other arm and then of the right leg. Thenceforward drowsiness had increased, the breathing had become irregular, the temperature was elevated one degree, the pulse was slow, but not remarkably so, the bowels were somewhat constipated, the pupils normal; the *taches cérébrales* were well-marked. It was undoubtedly a case of tubercular meningitis. Dr. Wellington inquired if this affection was always secondary.

Dr. Gannet said that primary cases had never yet been observed.

Dr. Lyman alluded to the case of a child who lay unconscious for four months, and who was supposed by the several able consulting physicians to have tubercular meningitis; yet the child recovered. He emphasized the difficulty of diagnosis between simple and tubercular meningitis, and asked if it was not unusual in the latter disease to have such remissions as apparantly occurred in this case.

Dr. Rotch said it was not uncommon to see remissions even up to a short time before death.

Dr. Reynolds said that blows on the head, sometimes of trifling character occasionally furnish the proximate cause of tubercular meningitis in cases wherein the tubercular diathesis already exists. He was convinced that in families with a tubercular predisposition much good might be affected by timely prophylactic treatment. At the earliest approach of threatening symptoms active hygienic and medical means should be employed. He quoted Lewis Smith as advocating the use of the iodide and bromide of potassium in small repeated doses as of great prophylactic value.

Specimen of a Normal Uterus at the End of the Sixth Month of Pregnacy.

Dr. Gannett exhibited, by invitation, a uterus and its appendages coming from a woman six months pregnant, who had died about ten hours after delivery; the patient having been, for several days, in a dying condition from extensive softening of the brain.

The specimen was of interest showing the normal appearances presented by a uterus shortly after delivery at the sixth month.

The cervical canal had not become obliterated; on the contrary, it was about three centimetres long. There was a well-developed corpus luteum in the left ovary.

The body of the uterus measured vertically sixteen centimetres. Its walls measured on an average 2.2 cm.

Fœtus Papyraceus.

Dr. W. L. Richardson showed a specimen which had been sent to him by Dr. R. A. Kingman. The woman had been delivered at full term. An examination of the placenta showed a second placenta which had undergone complete fatty degeneration, and in the membranes attached to it was a flattened fœtus, the growth of which had been arrested during the fourth month; as shown by its length and the ossification of the bones. Dr. Richardson said he had seen a similar case at the Boston Lying-in Hospital, in which with triplets one of the children had died at the third month. The pregnancy had gone on uninterruptedly and the labor was normal.

Dr. Kingman, present by invitation, said: The patient from whom the specimen came is a primipara, twenty-seven years old, a large, stout, healthy woman. With the exception of moderate nausea and vomiting extending over nearly the whole period of pregnancy, she has had no illness since conception. After a normal labor, a healthy female child of six pounds in weight was born alive and has maintained a vigorous existence since that time.

The pregnancy was supposed to have dated from the later part of April, 1884, at which time the last menstrual period ceased, but the

labor did not occur until March 8, 1885. No difficulty was experienced in expressing the placenta, the membranes following readily a few minutes later.

TREATMENT OF THE NAUSEA AND VOMITING OF PREGNANCY.

Dr. Abbot said that he had known marked relief to follow the exhibition of small doses of ipecacuanha, when all other remedies had failed.

Dr. Richardson had found ipecacuanha very efficacious in doses of two drops every two hours. He suggested that hydrochlorate of cocaine in capsules might prove successful in such cases.

Dr. H. W. Williams said that from his experience with the anæsthetic properties of cocaine in ophthalmology, he should think this drug would be very efficacious in the nausea and vomiting of pregnancy.

Dr. Webber alluded to a case, seen many years ago, in which the patient had been brought very low by extreme nausea and vomiting which had resisted all remedies; relief was obtained, however, by the use of oxalate of cerium in two-grain doses repeated every hour or two.

Dr. Lyman said that the topical application of iodine, to be effective, should be made within the cervix, not simply around the os externum.

Dr. Boardman had used with good results small, frequently repeated doses of calomel—one twentieth to one tenth of a grain every hour.

Dr. Ingalls had found one-eighth-grain doses of opium, repeated every hour efficacious in relieving nausea.

Dr. Baker said he had been called in two cases to produce abortion on account of obstinate and alarming vomiting; he found the uterus in marked anteversion in both cases, and by the application of a suitable pessary to raise the womb both patients were relieved.—*Boston Medical and Surgical Journal.*

Correspondence.

PITTSBURG, PA., June 30, 1885.

Editor Obstetric Gazette:

DEAR SIR:—In your report of the New Orleans meeting I am reported so as to be entirely misunderstood in three points. The three points are made clear by the following explanations:

1st. It is good practice to promise nothing more than an exploratory incision, to be prepared for any emergency, and to do the best you can with the difficulty when the abdomen is opened.

2d. In pelvic abscess treated by laparotomy, when it is not possible to drain it, the suggestion to open it, scrape it out, and to mop (not fill) its walls with iodoform gauze, and to then stitch it up, came spontaneously.

I have never done it. In my case it was possible to drain the sac, which was done successfully.

3d. In reference to epithelioma cancer of the cervix uteri in women who have never sustained a laceration of the cervix, I did not say that such cases were "numerous" in Martin's clinic, but that in Martin's clinic such cases did present themselves, that he showed me such a case, and that he does not believe that this disease in the cervix is confined to women who have been pregnant. Very truly yours,

R. S. SUTTON, M.D.

Abstracts and Selections.

I.—OBSTETRIC.

Three Cases of Tubal Pregnancy Successfully Operated Upon at the Period of Rupture.—Lawson Tait, F. R. C. S., contributes the following to the *British Medical Journal*:

These cases are the seventh, eighth, and ninth of their kind which have occurred in my practice; and all of the nine save the first have recovered and continue, up to the time of writing, in good health. Such a series, though not a large one, is sufficient to prove that these cases may be treated with perfect success under the improved and bolder proceedings adopted in the abdominal surgery within the last six years. In fact, they are almost of themselves sufficient, when taken with the established fact that the great bulk of such cases have a fatal termination when left alone, to determine the propriety of immediate operation in all such cases. They also confirm the views which I have already expressed, that cases of extra-uterine pregnancy, at a point which is determined by the uterine pregnancy are all tubal in origin, arising from a ruptured tube about the tenth or twelfth week of pregnancy, at a point which is determined by the site of the placenta. This explains the extreme fatality of the rupture. As not a single instance of extra-uterine pregnancy at the time of rupture has been discovered other than of tubal origin, we are absolutely wanting in evidence that there is any other origin for this displacement.

CASE VII.—E. D. H., aged 36, under the care of Mr. Wiren, was admitted to hospital in November 24th. She had not menstruated for nearly four months, and had never had a child, although she had been married twelve years. She was seized, some time early in November, with a violent attack of abdominal pain, for which she kept her bed and was under treatment. When I saw her the uterus was fixed and a tender mass existed on the right side. I recognized this as possibly a ruptured tubal pregnancy. I operated on November 28th, and found the

abdomen full of bloody serum and loose clots. The left Fallopian tube had ruptured to the extent of nearly three inches; it was adherent, and required considerable care in its removal, hæmorrhage being very free. The pedicile was tied by the staffordshire knot, and the pelvis drained. They patient made a very rapid recovery, and went home on January 5th. The fœtus in this case was not found; but the placenta occupied the dilated tube, and the rupture had taken place quite at its edge.

Case viii.—S. B., aged 41, married at 17, had eight children, the last being 10 years old. She had what was supposed to be a miscarriage in May last. The catamenia again ceased in November, 1884. She was sent to me by Mr. Scott of Wolverhampton early in February, and I found everything in the pelvis fixed, with symptoms of acute pelvic peritonitis. I opened the abdomen on the 9th, and found a large quantity of serum and clot in the pelvis. I found the fœtus lying loose, close to the ruptured right Fallopian tube, from which the placenta was extruding. The diseased organ was removed with difficulty, and the pelvis drained. The patient made an easy recovery, returned home on March 5th.

Case ix.— A. S., 26, under the care of Dr. Malins, had been married nine years, and had had four children, youngest child being 17 months old. After this confinement, she had a long and serious illness. The period again became arrested just before Christmas. About the middle of February she was attacked by violent pelvic pain. On the 23rd, I found all the pelvic contents fixed. I opened the abdomen, and found as usual, loose clots, bloody serum, and a largely distended and ruptured left Fallopian tube, in which there was a placenta. The fœtus was not found. The Fallopian tube was removed with very great difficulty, the hæmorrhage, during the operation and after it being very alarming. The pelvis was drained. The patient made a very admirable recovery, and left the hospital on March 11th.

II.—GYNECIC.

Laparotomy in Ileus.—(Dahm, in *Centralblatt für Gynäkologie*, No 17, 1885).—The operation of laparotomy for ileus was performed by the Hindoo physicians 800 B.C., but fell into oblivion until the beginning of the present century. From the literature of the years 1874-1882, 39 cases have been collected, three of which were performed in the Clinic at Halle, and are as follows:

1. A woman, æt. 55, menopause five years ago, was seized in February, 1880, with intense abdominal pain, accompanied with fever, frequent and painful micturition, and constipation. These symptoms disappeared after rest and treatment, to appear once again, and similarly depart. In June, 1880, an ovarian tumor was diagnosed, with probably a twisted pedicle, and an operation was recommended. Because of domestic reasons this was not performed, but in September she was ad-

mitted in a state of collapse, with stercoraceous vomiting. Laparotomy was performed, a large ovarian cyst being removed, with numerous adhesions to the omentum and the small intestine. The pedicle was twisted, yet there was no ascites. The symptoms of ileus were therefore due to the numerous adhesions to the bowel, and especially to a cord-like attachment between the bowel and mesentery. Death occurred 48 hours after operation from collapse.

2. Woman, aged 33 years, underwent laparotomy for the removal of a large fibrous tumor attached to the fundus uteri. Abortion of a two months' embryo occurred two days after the operation; the pregnancy had not been diagnosed. This was followed by iodoform intoxication, and fourteen days afterwards collapse set in, with vomiting of feculent material. A second operation was performed, and these symptoms were explained by the adhesion of the bowel to the incised part of the peritoneum, and by the constriction caused by one of them. Death followed in four hours, and 21 days after the first operation.

3. A secundipara, æt. 56 years, menopause 11 years ago, underwent ovariotomy because of a right ovarian cystoma. There were a few easily broken adhesions to the parietal peritoneum. The pedicle was tied with two elastic ligatures, and dropped into the peritoneal cavity. After 15 days there were symptoms of a narrowing of the lumen of the intestine, which increased to well-marked ileus on the 21st day. Laparotomy being performed again, it was found that five or six coils of the small intestine were firmly adherent to the ligatures. Portion of bowel above was much distended, that below collapsed. The adhesions were separated, and the wound closed. She recovered without the occurrence of any febrile symptoms.—*Medical Chronicle.*

On Hysterectomy.—Thomas Keith (*Edinburgh Medical Journal*, May, 1885) prefaces his paper by a tribute to the operation of removal of the ovaries and tubes in cases of fibroid tumors of the uterus. That it will not take the place of hysterectomy, however, he is certain. He advises its performance, in the first instance, in cases where operation is justifiable, when the tumor does not reach above the umbilicus, or is under nine pounds or ten pounds in weight. In larger tumors he doubts its efficacy in retarding the growth of the tumor, or in arresting menstruation, and draws attention to the extra danger incurred, owing to the greater distances of the ovaries and tubes from the middle line.

The frequencey of operation for uterine fibroids is condemned, as the mortality attending it is said to be greater than that of any other surgical operation. Death directly from these tumors is very rare, and not one woman in twenty, subject to the disease, suffers such inconvenience as to justify such a serious operation.

Operation is thought to be justifiable in the following cases:—

1. In all kinds of large rapidly growing tumors in young women. (By a large tumor is meant one completely filling the abdomen).

2. In all fibrous-cystic and suppurating cystic tumors.

3. In most cases of œdematous fibrous tumors which have not been cured by the removal of the ovaries.

4. In large bleeding fibroids, provided the menopause is not approaching, and the ovaries cannot be removed. In these cases the menopause is seldom reached before fifty years of age.

5. In some cases where, after two or three punctures, the fluid caused by peritonitis re-acumulates. The friction of a large tumor against the peritoneum may lead to sarcomatous or cancerous degeneration of that membrane.

Dr. Keith records here a series of ten successful cases.

Two fibrous cystic tumors of the uterus were operated on. The first, a tumor weighing 11 pounds, was turned out through an abdominal wound, measuring 10 inches in length. All but the vaginal portion of the cervix was removed. Double wire ligatures were applied as low as possible. Both ovaries were cystic, and one was so attached to the tumor that it could not have been removed. No unfavorable symptoms followed the operation. The second case was one in which the diagnosis was very uncertain. The abdomen was occupied by a "soft fluctuatory tumor." Above the crest of the ilium on the left side could be felt the fundus of the uterus. The uterus was of normal size, slightly moveable, and tender to the touch. *Per vaginam* it could not be reached. On tapping the cyst 100 ounces of blood serum were removed, which came away in a spasmodic manner. The tumor in some respects resembled an ovarian cyst springing from the right broad ligament, and pushing the uterus to one side, but it differed from similar cases seen by Dr. Keith, so that difficulty was felt in deciding between a fibrous cystic tumor, and an irregular form of retro-peritoneal growth. In six weeks the swelling was much larger, and operation was resorted to. A free incision from the umbilicus downwards was made, when the bladder was found high up in front. The uterus was on the left side and touched the ribs; the fundus stuck out of the tumor "like a potato." On making a puncture at the umbilicus no fluid was withdrawn. The upper portion of the sac was then pulled forward, and in doing so the right healthy ovary and tube were exposed. The whole of the tumor was now seen to be subperitoneal. The puncture made in the cyst was enlarged, and the hand introduced, the septa broken down, and as much fluid as possible squeezed out. The process of enucleation was then commenced. On both sides the solid part of the tumor extended to the floor of the pelvis, and here the adhesions were most dense. No bleeding point could be brought into veiw after the first few inches of separation. On turning the tumor out of the abdomen, it was found to be attached to the right

side of the uterus by a "broad, thick connexion." The latter was so dense that the cautery clamp caused it to be fissured. The bleeding points were secured with silk ligatures. Sponges were passed into the large cavity. The right ovary and tube were removed, as also a portion of the capsule, the edges of which were brought together with silk. Iodoform was poured into the sac, and a glass drainage-tube inserted, before the external wound was closed.

After the operation, which lasted one hour and twenty minutes, the patient was cold and collapsed. Two hours after the pulse was scarcely perceptible, but the surface of the body was warm. Several ounces of pure blood came away through the tube during the same day and night. Fifty days afterwards the patient returned home. An interesting point in connection with this case is that the body of the uterus and the left healthy ovary were saved.

The histories of three cases of solid fibrous tumor are related, and the operations described. In one there were extensive adhesions to the abdominal wall, stomach, and diaphragm. At first the incision extended from two inches above the pubes to five inches above the umbilicus. The tumor was in contact with the liver, and pushed both it and the diaphragm upwards. There were adhesions above everywhere. The least touch of the finger on the diaphragm caused respiration to cease. The incision was extended up as far as it would go. The lower part of the tumor was then pulled up, the forceps placed over the ligaments and base. The upper part was then dislodged, with the whole of the stomach adherent posteriorly. Over the upper third was spread the omentum containing enormous vessels, as well as adherent mesentery and intestine. The ascending colon was adherent to one part, and gave rise to much trouble. Troublesome hemorrhage arose from the upper part, and from long bands hanging down from the diaphragm. Thirty-six deep sutures closed the external wound. The operation lasted one hour and five minutes. For a few days after there was distress from the feeling of a weight on the chest. Recovery was complete.

In another case, the whole uterus was removed in a woman of fifty-eight years of age. A ligature was placed round its broad attachment below, and a clamp applied round the top of the vagina. She made a good recovery, but a short time afterwards died suddenly from cirrhosis of the kidneys, which must have been present at the time of the operation.

In one case of soft bleeding fibroid, in which the whole uterus was removed, the anæmia was so great that the "face could hardly be seen on the pillow." "The lips and tongue had literally no color." A more hopeless case could scarcely be imagined. "The tumor was so bloodless that when it was first exposed it looked like an ovarian tumor, and when the section was made scarcely any blood escaped." It weighed nearly 20 lbs. Forty days after the operation she went to the seaside, and "in

a short time it was impossible to recognize in the fresh, healthy, young-looking woman, the subject of all the anxious doubts and fears of some months before."—*Medical Chronicle.*

The Removal of the Ovaries for the Relief of Reflex Neuroses.—Dr. Schmalfuss, Hegar's assistant, contributes a valuable paper to the latest number of the "*Archiv. für Gynäkologie*," with the brief and expressive title "Zur Castration bei Neurosen." The importance of the communication is to be measured by the evident care with which the included statistics were compiled. It is stated that in every case the patient was under observation for a long time before the radical measure was adopted, and that she was seen and examined sufficiently long after the operation for any change in her condition to be accurately noted. The tubes were always removed with the ovaries, and the latter were generally found to be diseased.

The article is an actual addition to our knowledge of the subject, and is of real scientific value when compared with the vague and inaccurate accounts of single cases with which the journals and society reports used to teem. The writer analyzes in all thirty-two cases, which he divides into three groups, the first of which includes those patients who complained chiefly of pains in the loins and abdomen, hyperæsthesia of the vulva and vagina, and the other train of neuralgic symptoms which go to form a well-known picture. In the second class are grouped women with general nervous symptoms, including hysteria, while the last comprises the severest forms of reflex irritation, including hystero-epilepsy. Without entering into histories of the individual cases, which are detailed with great care, and in a manner that allows of no doubt concerning the accuracy of the observations, we may say that the writer finds that twenty-four of the thirty-two patients were cured, six were decidedly improved by removal of the ovaries. Among other interesting facts in connection with the subject, he mentions the persistence of the menstrual molimen for months and years after the operation. This was noticed in more than half the cases. Positive data, even in a small series, like the present, are of great importance, in that they furnish a decided refutation of the statement of those who are absolutely opposed to oöphorectomy. If statistics are worth anything, these must certainly prove that there are reflex neurosis of ovarian origin, that they are due to disease of the ovaries, and that they are permanently relieved by removal of the affected organs. But, while we subscribe to much of what the writer has stated, we are inclined to lay most emphasis upon the fact that Professor Hegar never operates for the removal of ovaries until all other treatment has been tried in vain.—*N. Y. Med. Journal.*

Uterine Hæmatocele. — Dr. G. Bernutz, physician to the Charité Hospital, of Paris, has concluded a lengthy paper on this subject in the *Ar-*

chives de Tocologie. His last article appears in the number for May, 1885, in which he arrives at the following conclusions:

1. Uterine, or peri-uterine hæmatocele can not be considered from a pathological point of view as a special disease; it constitutes simply an anatomico-pathological entity, which may give rise to a great number of diseases or diverse morbid conditions. It is consequently indispensible that the subject be exactly defined, to avoid its being too complex or having its pathological history confused.

2. The denomination of uterine or peri-uterine hæmatocele should, therefore, be applied only to sanguineous pelvic tumors contiguous to the uterus, and not really uterine, which have as their seat the peritoneal cavity itself; this excludes 1st, what is called extra or subperitoneal hæmatocele, a thrombus of the cellular tissue of the broad ligaments and of the vagina as observed in the puerperal state: 2d, the pseudo-hæmatocele of pelvic hæmaturæ, in which the hæmatic extravasation is not contained in the peritoneum, but either lies in an extrauterine abdominal fœtal cyst, or is intra-neo-membranous.

3. The name uterine hæmatocele should not be applied except to sanguineous intra-peritoneal collections which form tumors, and tumors that are perceptible to abdominal palpation and to the touch, that is to say, which are encysted. It cannot be applied legitimately to collections of blood that are free, floating in the serous membrane, changing position under pressure of the hand, and not giving the characteristic resistance of all tumors. This latter class should be defined as internal abdominal hemorrhage.

4. Therefore an uterine hæmatocele requires two factors for its existence: an intraperitoneal pelvic hemorrhage, and the septum of the pelvic excavation, one may be the cause of the other, or they may occur at different periods. The hemorrhage which engenders this hæmatoma may arise from this pelvic septum, or it may immediately follow upon a subacute pelvic peritonitis.

5. The mode which has for years been considered as the only one, is where the hæmatocele has as its initial factor an intraperitoneal pelvic hemorrhage, which creates secondarily an encysted peritonitis. In these cases, where the pelvic cavity and the abdominal cavity proper are in free communication, and where, consequently, the vascular tension, not being confined to the walls of the cavity, is prone to distension, the sanguineous extravasatio ı, by its abundance, causes cataclysmic symptoms, such as characterize internal abdominal hemorrhage; and terminate fatally, either by excess of blood discharged, or by the development of a generalized peritonitis, or by the manifestation of serious functional disorders caused by compression.

6. In the second mode of formation, there pre-exists, on the contrary, a septum of the pelvic basin, which constitutes after a time a closed cav-

ity, whence it results that the sanguineous extravasation can accumulate, but in moderate proportions, causing a comparatively benign symptomology. The hemorrhage which gives rise to the hæmatoma in this form may be from a lesion of the ovary (ovarian hæmatocele), a congenital or acquired atresia, complete or incomplete (hæmatocele by menstrual retention), an exaggeration of the secretion of the blood by the internal genital organs (metrorrhagic hæmatocele), or an active neo-membranous congestion (hæmatocele symptomatic of a pachy-pelvic hemorrhagic congestion), occurring most frequently at a menstrual epoch or after a menstrual disturbance, with women in apparent good health or affected with a hæmorrhagic diathesis, and the hæmatocele is established. In this variety there exists a special anatomical disposition, which is characteristic and consists in a repletion, associated with the pelvic intra-peritoneal hæmatocele, of one or both of the oviducts with blood.

7. In the third mode of formation in which most frequently there pre-exists a septum of the pelvic basin that is of some age, and may be incomplete, the hemorrhage which produces the hæmatocele occurs in the course or decline of a subacute pelvic peritonitis, which constitutes a phase antecedent to the hemorrhage by favoring the multiplication of new vessels in the serous membrane. This occurs generally, at a catamenial period, as a recrudescence of the inflammation of the pelvic serous membrane; it becomes at once of considerable volume, and immediately perceptible, and gives ultimately the progress and termination of an ordinary hæmatocele. This is the most common form of all.

8. Dr. Bernutz combats the well known theory of Virchow upon the mode of formation of hæmatoceles as being inexact and not sustained by his study of the subject. The very exceptional cases that respond to that theory constitute an affection absolutely distinct from uterine hæmatocele, with which these intra-neo-membranous hæmatomata have but very remote relations, because there is, 1, as an initial factor, a special chronic inflammation, hemorrhagiparous, of the pelvic serous membrane, which is most frequently located on the posterior wall of the uterus; 2d, a slow, chronic and intermittent mode of formation; 3d, a baffling symptomatology, at present indefinite; 4th, as an anatomical characteristic, a special constitution, identical with that of the meningeal hæmatoma, which are symptomatic of pachymeningitis. which is entirely different from the anatomical constitution observed in uterine hæmatocele properly so-called, in which the extravasation has for its seat the peritoneal cavity itself incrusted with false membranes.—*Journal of the American Med. Association.*

Control of the Lacteal Secretion.—By J. Stuart Nairne, F.F.P.S., in the *British Medical Journal.*

The breasts of parturient women frequently give trouble from engorgement of the lactiferous vessels, and from other causes leading to tension

and pain in these organs. The two following cases will illustrate the line of treatment I have followed for some years past under these circumstances, and which has never yet failed to give me perfect satisfaction and my patients perfect ease.

CASE 1. — Mrs. G., multipara, was confined of a dropsical and malformed dead child, at full time, on March 14, 1885. The breasts, which had been small and hard before confinement, soon became engorged and swollen, and the patient was hot and feverish. Cloths moistened with whisky and vinegar were laid on the breasts and ten drops of the tincture of belladonna were given every hour. Within twenty-four hours the throbbing, which had been very troublesome, had ceased; milk could be easily expressed from the nipples, and she complained of a very dry throat. When the throat began to become dry, the number of drops of the tincture was diminished. During ten days she had this treatment; the last few days, ten drops three times a day, and by that time the milk had almost entirely disappeared and the breasts were small and flaccid. They gave no further trouble.

CASE 2.—Mrs. C. was confined of her second child on May 25, 1885; it was very small and weakly, being born before its time. She had a rapid rush of milk to the breasts, and next day these organs were very much enlarged, tender and hard, and the child could draw no milk from them, and was so weakly that I thought it would die. It was, therefore, fed with the spoon, and the tincture of belladonna was given internally, as in the first case. The breasts were supported and gently rubbed from the circumference toward the nipple. Next day she said she felt scarcely any pain, and the milk could be easily expressed from the nipples. The belladonna was continued another day, by which time the breasts were so soft and the milk was flowing so freely that the child was able to take its own nourishment. The belladonna was then stopped, and the breasts have given no further trouble.

These are only two cases, which I have described because they have just occurred, and they point quite clearly to the powerful influence that belladonna has in modifying the secretion of milk. Of course one might say, that after a few days the breasts settle down of themselves to their work. Sometimes they do and sometimes they do not. My observation points to the fact that poor women of their own accord fly to a hundred different remedies to relieve them — sedlitz powders, castor oil, rubbing with oil and various things, and exhausting the breast with some kind of apparatus, and frequently to no effect: and frequently, also, with no result, is belladonna applied externally. The worst suppurating breast I ever saw was one in which the extract of belladonna had been applied most faithfully. In fact, applied externally in any form, belladonna is most disappointing. It frequently fails to relleve pain, take out the heat or relieve the secretion of milk, and the cleanest of its applications are

dirty. The smell, too, is frequently exceedingly offensive to the patient. Belladonna given internally is at once cleanly and effective, and I believe that, administered with judgment and careful watching of its effect, it is a specific for such congested conditions of the mammary organs.

The Uncontrollable Vomiting of Pregnancy.—The following, by Graily Hewitt, we extract from the *Medical Press and Circular*:

I shall be obliged if you will permit me to make one or two observations in reply to the remarks in the last number of the *Medical Press* on the uncontrollable vomiting of pregnancy. I am the last person in the world to deprecate criticism of my views on the subject in question, but I should like it to be exactly stated what my views really are, as it is evident there is a misconception in this particular.

From an analysis of thirty-two cases of so-called uncontrollable vomiting of pregnancy in which the condition of the uterus had been recorded, I argued that the cases "pointed conclusively to interference with the normal expansion growth of the uterus" as the prominent pathological factor. Also, that "this is most frequently brought about by, or in connection with, detention of the bulk of the uterus in the bony pelvis," there having been, in the large majority of cases, incarceration of the body of the uterus in the pelvis in a state of anteflexion or anteversion; or, in a few instances, in a state of retroflexion or retroversion. Further, it is recorded that certain other cases where no mention was made of displacement, there was particular mention made of presence of "hardness, resistance, unusual rigidity of the os and tissues of the cervix, and this abnormal condition extending to the internal os uteri."

From the above recorded facts I deduced the conclusion that "there appear to be two factors to be considered, both capable of interfering with the expansion of the uterus—A. Incarceration of the organ in the pelvis associated with flexion or version; and B. Undue hardness and rigidity of the tissues of the cervix around the os uteri internum."

The above quotations from my paper represent my views on the subject, and it will be evident from the paragraphs that I admit the possible occurrence of severe vomiting in pregnancy without actually present version or flexion. In another part of my paper I have expressed the opinion that the altered condition of the tissues of the cervix is mostly due to previous flexion or displacement, this latter opinion being, according to my experience, thoroughly supported by clinical facts. This latter opinion will, I confidently believe, come to be recognised as correct when the previous clinical history of cases is accurately investigated.

You rightly state that anteversion of the uterus "in early pregnancy may be, and in many cases certainly is, normal." But it is one thing for the uterus to be anteverted simply; and another for it to be anteverted and almost immovably fixed in that position in the pelvis. The latter

condition, as is demonstrated by the cases I have collected, is one of the most frequently present conditions associated with uncontrollable vomiting in pregnancy.

It is not a little curious that Prof. Horwitz, whose cases so completely support my views on the subject, expresses two absolutely opposite conclusions in his paper. In one place he says that I have overestimated the frequency of alterations in the shape of the uterus in these cases, while in another part of the same paper he says "we have in most cases to deal with versions of the uterus, and sometimes to such a degree that the fundus uteri touches the symphysis, and is extremely difficult to redress; sometimes the uterus appears to be wedged in the pelvis." The latter of the two opinions is further backed up by the statement that he has "been convinced by several observations that the direct redression of the uterus is the most beneficial measure that can be adopted." After this latter statement what are we to think of the value of the *first* expressed opinion?

The Constituents of Ergot of Eye.— An advance has been made in our knoweldge of the constituents and action of ergot of rye (*vide* Kobert, *Archiv für Exper, Pathol, und Pharmacol.*, Band xviii, p. 316, reviewed in the *Berlin Klinische Wochenschrift*, No 21.) The practical result, that the extractum secalis cornuti of the pharmacopœias is most unfitted for causing uterine action, for it contains ergotic acid. Pure ergot of rye, undeprived of oil, and gathered in the autumn, is to be recommended. There are three chief physiological constituents in spurred rye. The first is ergotic acid (which forms most of Dragendroff's sclerotic acid). This substance does not set up ergotism, but, in frogs, it causes paresis and anæsthesia; the animal may be made to appear dead for a week, the circulation still going on. Ergotic acid might apparently replace curare in experiments. Chronic feeding with ergotic acid causes no symptoms of any sort in rabbits, but hypodermic injections cause inco-ordination, general paresis, and death from paralysis of respiration. Sphacelic acid comes next, a resinous looking non-nitrogenous body. Given to fowls, this may cause the comb and wattles to become black and dry, even in a few hours, a true gangrene being set up. This is due to excessive concontraction of the arterioles, causing extremely diminished blood-supply and hyaline thrombosis. After a fatal dose, retching, diarrhœa, and vomiting set in, with ataxy, and death may be due to tracheal obstruction. If the animal survive, much larger doses my be required before the same symptoms are repeated. Long feeding with it caused loss of the wing in one fowl, the general health being undisturbed. A remarkable thickening of the skin was also noticed. The third pharmacological element is a basis substance, cornutin. This is not identical with the wholly inoperative "ergotinin" of Tanret, but forms the main constituent

of ergot of rye after its oil has been removed. It causes death with convulsions in animals. The irregular contractions which sets up in the uterus (gravid or not) have nothing to do with the true uterine tetanus consequent on taking large doses of secale cornutum, and which is to be ascribed to sphacelic acid. Cornutin causes convulsive ergotism; sphacelic acid causes gangrenous ergotism. Why in some seasons and neighborhoods only sphacelic acid develops in spurred rye, while, in others, cornutin is almost the only constituent, is unknown.—*British Medical Journal.*

Conservative Ovariotomy.—Professor Schatz, of Rostock, has described in the *Centralblatt für Gynäkologie*, June 6th, a highly interesting case of pregnancy following double ovariotomy performed after a plan recently advocated by Schroder. On February 20th, 1880, Dr. Schatz removed from a girl aged twenty, a large cystic tumor of the left ovary, including the outer third of the Fallopian tube, and all the ovarian tissue. The right ovary was distinctly enlarged and cystic; it was ligatured by means of three silk threads passed between it and the broad ligament, and cut away in such a manner as to leave a piece of ovarian tissue, hardly two millimetres broad, on the proximal side of the ligature. The right tube remained intact. An abscess formed, during recovery, in the track of a suture in the abdominal wound. On March 21st, when the period was due, severe pain was felt on the right side of the hypogastrium and right thigh, with vomiting and fever. The symptoms recurred on April 8th and May 8th. No deposit could be detected in the pelvis. The first "show" appeared on May 9th; it lasted three days, and was pale and scanty. It recurred on May 31st. In the interval there were attacks of pain in the left groin. On June 11th, a swelling of the size of a plum was detected behind and to the left of the uterus, which was strongly anteflexed. On June 28th, severe sacral pain set in; it radiated to the left inguinal region and disappeared at period, which was copious, and lasted for six days. On July 15th, the uterus was found to be small and retroverted. The catamenia thenceforward appeared regularly till the patient's marriage in April, 1884. She became pregnant in September, and was delivered on May 12th of this year.—*British Medical Journal.*

Caneva's Proposed Operation for the Cure of Prolapsus Uteri.—The patient is placed on the operating table in the supine position, with the nates raised. A metallic sound is to be introduced into the uterus, so that the body of the uterus may be held against the anterior wall of the abdomen. The operator, standing on the left of the patient, makes an incision in the linea alba five centimetres from the horizontal branch of the pubes, extending for six or seven centimetres above the body of the uterus down to the peritoneum; with the handle of the bistoury or with

the finger, he separates the peritoneum from the margins of the wound. The uterus being held in position by an assistant by means of the sound, the operator, with a fine needle and catgut unites the visceral to the parietal layer of the peritoneum. The abdominal wound is then closed; some points of suture, including the peritoneum, and antiseptic dressing, applied. Caneva does not consider the operation dangerous, and believes that the bladder would be only temporary disturbed by the new state of things. He recommends this procedure in cases of grave prolapse, when pessaries are not well tolerated, and other methods of treatment have failed. Subsequent pregnancy, he thinks, would do no harm. —*London Medical Record.*

Cocainization of the Bladder.—Dr. P. Bruns, of Tübingen (*Berlin. klin. Med. Woch., Lancet*), records a case of litholapaxy in which the bladder and the urethra had been rendered insensitive with cocaine. The bladder was first washed out with a boro-salicylate solution; then three hundred grains of a two per-cent. solution of cocaine were thrown in, and half that quantity was injected into the urethra. After a few minutes the bladder was filled with the boro-salicylate solution, and the operation was proceeded with. Throughout its whole duration, twenty-two minutes, no pain was felt, although previously the passage of a catheter had scarcely been borne. During the evacuation, each distension of the bladder caused pain, but that was when the anæsthesia had already lasted for half an hour. Finally, a small quantity of a ten-per-cent. solution of iodoform in glycerine was injected, to protect the abraded bladder from purulent absorption.—*N. Y. Med. Journal.*

Antisepsis gone Mad.—At Breslau a midwife was recently condemned to six week's imprisonment because she neglected to wash her hands in carbolic lotion immediately before commencing work in a case of confinement. The midwife said that she washed her hands in the carbolic wash before leaving her home; but this was declared unsatisfactory.—*Medical Press.*

III.—DISEASES OF CHILDREN.

Specific Treatment of Diphtheria by the Combustion of Turpentine and Coal-Gas Tar.—Deltzel's (*Jahrb. f. Kinderh.*, B. xxii.) plan was as follows: Large vessels were distributed about the sick room, the vessels containing a kilogram of gas tar, seven or eight spoonfuls (teaspoonfuls?) of oil of turpentine, and one hundred grams of oil of cajeput. To this was added a mixture of coal tar and benzoic acid every hour, the mixture being burned. In addition a vapor of coal tar and lime water was evolved. Thus carbon compounds and empyreumatic substances were liberated which impregnated the throat and air-passages, were absorbed

by the mucous membrane and facilitated the expectoration of the softened false membranes. These substances were taken up by the blood, as was shown by examination of the urine, and neutralized in this way the specific poison of the disease. The prophylactic effect of this treatment is believed to be very valuable, and may obviate, in some cases, the necessity for tracheotomy.—*Archives of Pediatrics.*

Concerning Hemorrhages from the Genitals of Female Children.—(Gautier *Rev. Mens. des Mal. de l' Enf.*, Dec. 1884.)

This work was originally published in the *Revue Médicale de la Suisse Romande*, and the following abstract is from its fourth part. The cases of precocious maturity collected by the author number forty-one, nineteen being distributed between the time of birth and the first year of life, nine between the end of the first and the end of the second years, and eleven between the end of the second and the end of the sixth years. For subsequent years no collection of cases has been made, indeed very few of such are published, as they do not excite the same degree of professional attention as is aroused by the same phenomena in the first years of life. Excepting for the child with whom the first menstruation has appeared at birth, the bloody flow is never the initial symptom of premature puberty. It is always preceded by an increase of weight and size, swelling of the mammary glands, and perhaps by a growth of hair upon the public region, and development of the labia majora.

Concentrated Pepsin.—Wm. R. Warner & Co's concentrated pepsin in powder is a preparation much appreciated by all who have occasion to use pepsin in scales, and especially where a concentrated article is required. It forms a clear solution, retains a pulverulent condition, and mixes with other substances. The use of this preparation in cases of ulcers of various parts of the body — particularly those of the stomach— has given very satisfactory results from its power of dissolving albuminous products. This pepsin has been found useful as an application to diphtheritic ulcers; also for indigestion of children, who take it without much trouble. Again, this preparation is found very useful in nervous vomiting and diarrhœa. I find this pepsin has many more times the power of digestion than the saccharated form. The advantages of Warner & Co's pepsin—as indeed of all their preparations—are that it is uniform and reliable.—*Va. Med. Monthly.*

We have for sale one physician's apparatus. This superior electro medical apparatus is new, having just received it from the manufacturers. It is a bargain and can be had cheap. Address Battery, this office.

For Antiseptic purposes, use Listerine.

General Principles of Therapeutics in the Diseases Which are Peculiar to Children. (*Vinra y Carreras: El Progreso Ginecologico.*)

Therapeutics in the diseases of children should, of course, be governed by the condition of the patient, but certain general principles should always be borne in mind; children will tolerate certain drugs more readily than adults, and, on the contrary, certain other drugs, for example, calomel and opium, are not well borne. Absorption occurs very rapidly with children; hence the action of certain substances, such as cantharides must be very closely watched. Local or general blood-lettings are usually not well tolerated. Narcotics or irritants should be used only when their use cannot be avoided. The stronger alkaloids and hydrocyanic acid should not be used at all in the earlier periods of life. It is not a good plan to combine a number of very active agents in the same formula. A rational empiricism is occasionally much more effective in the practice of pediatrics than vigorous adherence to scientific theories. The dose and the form of the medicine should be such, as far as is possible, that a sick child will take it without repugnance. Pills and gargles are, of course, unsuited to infancy. Lotions are indispensable in treating children. A well-ordered hygiene will prevent many forms of sickness, and is as important in pediatrics as therapeutics. The indications should be carefully studied, and when these are manifest one should act with decision, rapidity and energy. It is always prudent to use force in those cases of obstinancy which will not yield to gentleness. —*Archives of Pediatrics.*

For a boy aged eight years, with *chorea*, limited to the voluntary muscles, Prof. Bartholow ordered that the child be kept from school. A pill of the iron iodide was given ter die, also liq. potassii arsenit., gtt. iij, at first, then soon to be increased to gtt. v ter die, and again reduced to gtt. iij ter die.

Bibliography.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P., Professor of Obstetrics in King's College, etc. Fourth American from the Fifth English Edition. With notes and additions by Robert P. Harris, M.D. Three plates and one hundred and one illustrations. Philadelphia: Lea Bros. & Co. 1885.

Playfair's Obstetrics has long since become well known and highly regarded by the profession; so the announcement of a new edition, and especially an edition particularly, by courtesy, presented to the American

profession will be accepted as giving all that is new or old, worth our consideration. The American editor, Dr. Harris, is well known as an enthusiast in obstetric medicine and especially in certain departments. It is well known that there are differences in the English and American modes of procedure, as, for example, in the use of the forceps and in the position of the woman for their use; so too the comparative fear as to the Cæsarean operation. These and other minor differences of practice are fully presented in the American notes to a very valuable work. At any rate there is perhaps no more valuable work on obstetrics extant for the general practitioner.

A Treatise on Asiatic Cholera. Edited and prepared by EDMUND CHARLES WENDT, M.D. In association with Drs. JOHN C. PETERS, of New York; ELY MCCLELLAN, U.S.A.; JOHN B. HAMILTON, Surgeon General U. S. Marine Hospital Service, and GEO. M. STERNBERG, U. S. A. Illustrated with maps and engravings. New York: William Wood & Co., 56 & 58 Lafayette Place. 1885.

In view of the probable invasion of this country with an epidemic of cholera, at an early date (perhaps before the year closes), the work before us seems to be especially opportune. It is well that the general practitioner be familiar with the history, and progress of cholera, its various manifestations, and so be prepared in various localities to give good hygienic advice. So too it is well that the general practitioner have such a good idea of the therapeutics of cholera that should there be a sudden invasion of the plague in his vicinity that he will meet his cases with well defined plans of treatment.

The volume before us, one of the series of Wood's Library for 1885, gives a complete history and therapeutics that can be relied upon. So much so that we suggest that the substance of this book be issued in cheap form for the benefit of doctors and laity alike.

Hand-Book of Diseases of the Skin. Edited by H. V. ZIEMSSEN, Professor of Clinical Medicine in Munich, and editor of Ziemssen's Cyclopædia of the Practice of Medicine, etc. New York: Wm. Wood & Co. 1885.

In many respects this is rather a remarkable book. When the publishers announced the contemplated issue of a translation of Ziemssen's Cyclopædia, it was expected that the whole would be completed in a certain well understood limit—as the work progressed it was found the material was far greater than was expected and so while the number of volumes was not increased, their bulk was very materially increased. Again, it was expected that this volume of "Diseases of the Skin" would be ready to incorporate with the series of the Cyclopædia; but, for some reason, the matter was not furnished until the series of the Cyclopædia

was complete. But—that no one might feel aggrieved at their failing to receive "Diseases of the Skin," Messrs. Wood & Co. have now published the work complete and send the volume, handsomely executed in all respects, to every subscriber of the Cyclopædia. So we take this occasion to say that every subscriber of Ziemssen's Cyclopædia should at once send their address to Messrs. Wood & Co., New York, and thus be sure of receiving a copy of this elegant Hand-Book of Diseases of the Skin. The book is really very fine in all respects and is a present to the old subscribers.

On the Wasting Diseases of Infants and Children. By EUSTACE SMITH, M.D., Lond. Fourth edition. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1885.

This little book is well known to the profession and the Messrs. Wood have done a wise thing in making this one of the series of the "Medical Library for the current year. The several chapters embrace everything of importance in the care and the therapeutics of young children. The topics embraced in the several chapters are those which concern us most in the care of infantile diseases; they will afford an excellent guide in the management of all cases pertaining to the therapeutics and hygiene of the entire class of infantile troubles.

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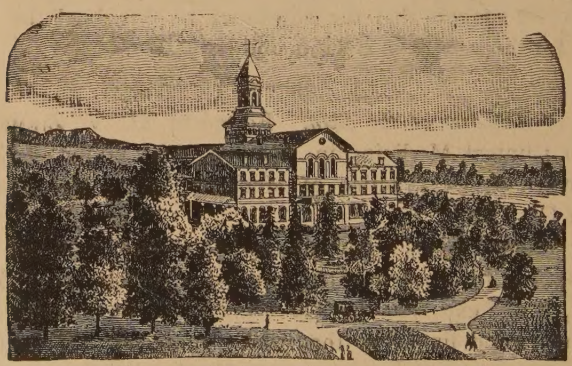

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